A BUSINESS ARCHITECTURE MAPPING
BETWEEN
DOD MILITARY HEALTH SYSTEM (MHS) ACTIVITY MODEL (OV-5)
(A PRODUCT OF THE MHS ENTERPRISE ARCHITECTURE)
AND
DVA VETERANS HEALTH ADMINISTRATION BUSINESS ARCHITECTURE
(A SUBSECTION OF VHA ENTERPRISE ARCHITECTURE-2001 FRAMEWORK)

Submitted To

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EXECUTIVE SUMMARY

1. BACKGROUND

A meeting was held on October 17, 2001, regarding Information Management (IM) and eBusiness, Policy, and Standards (eBP&S) support for Interagency Program Integration of IM/Information Technology (IT). As a result, the TRICARE Management Activity (TMA) initiated a project to conduct a high-level mapping of the Department of Defense (DoD) Military Health System (MHS) and Department of Veterans Affairs Veterans Health Administration (VHA) Business Architectures (BAs). The BAs used in the mapping process were the MHS's future state Activity Model, Operational View (OV)-5, herein referred to as "MHS Activity Model (OV-5)" and the VHA's BA, herein referred to as "VHA BA." Both the MHS Activity Model (OV-5) and VHA BA products fulfill the requirements of Federal law (Clinger-Cohen Act of 1996), which charges executive agency Chief Information Officers with "developing, maintaining, and facilitating the implementation of a sound and integrated information technology architecture." The purpose of the mapping is to identify where the MHS Activity Model (OV-5) and the VHA BA are common and where they differ.

The MHS Activity Model (OV-5) product not only fulfills the requirements of the Clinger-Cohen Act but also fulfills the mandatory requirement for developing an Activity Model product from the OV perspective of the DoD Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) Architecture Framework, version 2.0. The C4ISR framework provides uniform methods for describing information systems and their performance in context with mission and functional effectiveness. The MHS Activity Model (OV-5) is a "Future State" or "To-Be" model with a vision to year 2010. The model is supported with scenarios, production documentation, and other documentation. It describes the applicable activities associated with the operational architecture and is hierarchical in nature; that is, it begins with a single box that represents the overall activity and proceeds successively to decompose the activity to the level required by the purpose of the operational architecture. The MHS Activity Model (OV-5) contains four core processes, 24 component processes, and 98 activity-level processes. Additional information on the MHS Activity Model (OV-5) is available in the DoD MHS Enterprise Architecture (EA) document (draft) of October 12, 2001. The applicable part of that document is Section 3, MHS OV and is provided as Appendix A to this document.

The VHA set out not only to comply with the Clinger-Cohen Act but also, more importantly, to establish an exceptional architecture that enables veteran health within the new digital health environment. The VHA EA-2001 is an integrated architecture framework of principles, guidelines, and rules for evolving and maintaining existing systems and acquiring new information technology. Included as a subsection of this framework is the BA, which provides a knowledge base that catalogs and describes the work performed to realize VHA's mission, vision, and goals. It provides a starting point to achieve linkages between business, information, applications, data, and infrastructure. The preliminary BA has been developed by combining and synthesizing subject matter expertise, existing VHA subject area business models, "industry best practices," stakeholder/business area inputs, drivers, and the EA Business Vision. The Business

Vision presents VHA's "future business environment" from key stakeholders' perspectives. Future building blocks of the BA will include mapping of core functions/sub-processes to both their information needs and business locations. The development of the BA is an iterative and evolutionary process. Ultimately, this effort will provide more interoperable, less redundant information technology assets that are better aligned with business objectives. The VHA anticipates enhancing the VHA EA-2001, including the BA, in mid-2002. The VHA BA contains 13 business process functional areas and 68 sub-processes.

2. MAPPING PROCESS

MHS Activity Model (OV-5) is organized into three levels. Level one has four core processes, level two has 24 components, and level three has 98 activities. MHS Activity Model (OV-5) definitions are organized into four main (core) areas (also, see Appendix B):

- Access to Care
- Provision of Health Services
- Population Health Management
- Manage the Business

VHA has developed two levels of Business Processes (BP). The first level consists of 13 functional areas in which seven are "core" functions and six are "supporting/enabling" functions. At the second level, there are 34 sub-processes within the core functions and 34 sub-processes within the supporting/enabling functions. VHA does not utilize numbers to identify their BP, so the project team assigned a unique number to each process and sub-process to facilitate reading and comparing during the mapping process. The seven core functional areas for decompositions are (also, see Appendix C):

- Member Management
- Access Management
- Patient Care Services
- Financial Management
- Veteran Service
- Clinician and Student Education
- Research and Development

The six supporting/enabling functional areas for decompositions are (also, see Appendix C):

- Human Resources
- Information Management
- Organizational Management
- Provider Management
- Operations, Logistics, and Supply Chain Management
- Strategic Planning and Budgeting

Using the MHS Activity Model (OV-5) definitions (see Appendix B) and the definitions provided by the VHA in their VHA EA-2001 Framework (see Appendix C), the project team supporting this effort began the process of reviewing and comparing those definitions (Note: the VHA does not define their 34 supporting/enabling sub-processes). The initial mapping process began by attempting to make all reasonable connections between the VHA BA decompositions/definitions and the MHS Activity Model (OV-5) business process definitions. These potential mappings were then discussed with VHA staff in an attempt to resolve any discrepancies and to provide further clarifications where needed. Since this was a high-level mapping, only one joint validation session by both MHS and VHA functional representatives was accomplished.

3. RESULTS

As a result of these efforts, a comprehensive mapping product has now been completed and immediately follows this executive summary. The document provides a high-level mapping of the MHS Activity Model (OV-5) with that of the VHA BA. It includes the MHS Activity Model (OV-5) business process number and definition along with the corresponding VHA BA mapping, definition, and comment.

Graphical representations of the relative mapping strengths are shown in Appendix D. "Strong" mappings are shown in green, "weak" or "moderate" mappings are shown in yellow and "no equivalent" mappings are shown in red.

Elements of the MHS Activity Model (OV-5) and VHA BA that could not be mapped to each other (gaps) are identified in Appendix E. MHS's gaps occur mostly because of the military's unique responsibility for force health protection and wartime readiness. VHA's gaps are mostly attributed to their additional mission emphasis in medical education, academic affiliations, and research and development.

4. CONCLUSIONS

This mapping product and process shows that most of the processes map moderately, while a small percentage of the processes mapped strongly or had no mapping at all. At times, it was difficult to make a mapping because, as mentioned before, the VHA did not define their 34 supporting/enabling sub-processes. In fact, most of the supporting/enabling functions and sub-processes were mapped based solely on their title or upon the VHA's input during the joint validation process. VHA has indicated that most, if not all, of their supporting/enabling sub-processes may be defined during their annual update of the VHA EA-2001 in mid-2002.

This mapping has also provided both TMA and VHA with a better understanding of BP by which each organization has developed and continues to develop within their respective operational architectures. Most importantly, it has caused each organization to be more aware of what the other is accomplishing with its respective operational architecture so that the two views can eventually become complimentary to each other.

5. RECOMMENDATIONS

The VHA will be enhancing their EA in mid-2002. Therefore, it is strongly recommended that TMA consider re-mapping and updating this product when the VHA completes their enhancement. After a new mapping in mid- to late 2002, the next logical step should be to begin looking at the VHA BA and how it compares to the MHS OV-2. This effort should begin with looking at the corresponding areas of MHS OV-2 that had strong mappings from this report (Appendix D), and comparing them with the VHA BA to see what gaps, if any, exist.

APPENDIX A

DOD MILITARY HEALTH SYSTEM
ENTERPRISE ARCHITECTURE (DRAFT)

(EXCERPT OF OPERATIONAL VIEW, SECTION 3 ONLY)

MAPPING OF MHS ACTIVITY MODEL (OV-5) VERSUS VHA BUSINESS ARCHITECTURE

MAPPING OF MHS ACTIVITY MODEL (OV-5) VERSUS VHA BUSINESS ARCHITECTURE

MHS BP Model	MHS BP Definition	* VHA BP Mapping Decision	VHA BP Definition	** Comments
1.0 – Access to Care	Processes designed to streamline a beneficiary's efforts to receive care and ensure the care received is appropriate in terms of type of care, intensity of care, and location of care.			
1.1 – Manage Enrollment and Eligibility	Manage health care services through a beneficiary enrollment process which collects and maintains a core set of information. This information is used to determine what services an individual can receive.	**1.0 – Member Management** **13.0 – Strategic Planning & Budgeting**	Member management includes the processes and activities surrounding the establishment and maintenance of a veteran in the veteran's health care delivery model. Member Management encompasses enrollment, eligibility, benefits, selection of the preferred facility, selection of the primary care provider, and veteran education regarding all aspects of health care. The processes that establish and prioritize long-term enterprise goals and objectives, set policy, and formulate and execute the budget.	Core function. Broader than MHS 1.1, but does include "process enrollment and determine eligibility." Supporting function. Broader, includes "determining policy."
1.1.1 – Establish & Maintain Benefits Policy	Initiate and manage the new beneficiary's orientation to the health care system. Update, implement, and disseminate changes to the benefit package.	**13.2 – Determine Policy**	Not defined.	Broader, although not defined, it could be implied that it includes "benefits policy (MHS 1.1.1)." VHA may have defined by mid-2002, re-review at that time.
1.1.2 – Establish, Maintain & Access Enrollment & Eligibility	Ability to collect, maintain, and update a core set of enrollment/eligibility information (i.e., PCM, beneficiary personal preference information). Based upon this core set of information, eligibility for	**1.1 – Gather Patient Information**	The process in which specific attributes of applicants (e.g., service-connected disability, means test results) are gathered to enroll an applicant/patient. This process also includes gathering of a specified set of demographic data	Narrower, "gathering info on patient" is only a part of MHS 1.1.2.

*** Assigned unique number to each VHA Business Architecture process and sub-process to facilitate reading and comparing.**

**** Comments are related to the VHA's business process or definition and how it relates to the MHS business process.**

MHS BP Model	MHS BP Definition	* VHA BP Mapping Decision	VHA BP Definition	** Comments
	services is determined.		used to identify the individual and to facilitate communication with and education of that individual.	
		1.2 – Determine Eligibility	A process that determines an individual's eligibility for care in the VHA healthcare system. It is this process that determines the extent of financial liability (e.g., coordination of benefits) of the veteran, the VHA, and/or a contracted provider or sharing arrangements (such as, the sharing of patient care between facilities). A veteran's eligibility must be verified prior to being enrolled into the VHA healthcare system.	Narrower, is specific to "eligibility" only.
		1.3 – Process Enrollment	This is the process by which a veteran is enrolled in or disenrolled from the VHA health care system. During enrollment, specific attributes of applicants (e.g., service-connected disability, or means test results) are subjected to a predefined set of criteria to determine whether the applicant qualifies for enrollment. This process also includes the gathering of a specified set of demographic data used to identify the individual and to facilitate communication with, and education of, that individual. An individual is disenrolled when he or she is determined to be ineligible, declines enrollment, or when a pre-defined event is triggered based on changes in eligibility, including a veteran's priority being ranked below threshold, or in certain cases, the veteran's means test expiring.	Narrower, is specific to "enrollment" only.
		1.4 – Assign Primary Care Physician	The veteran selects, or is assigned a primary care provider.	Narrower, is a part of "enrollment (MHS 1.1.2)."

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MHS BP Model	MHS BP Definition	* VHA BP Mapping Decision	VHA BP Definition	** Comments
		1.5 – Assign Preferred Facility	Assign or receive a veteran's preferred facility for services.	Narrower, is a part of "enrollment (MHS 1.1.2)."
1.2 – Perform Assessment and Plan for Care	Determine a need for health care services and direct the beneficiary to the appropriate level of care to receive the identified service in a timely manner.	**3.1 – Provide Direct Patient Care**	The patient is provided direct patient care including patient evaluation and/or treatments, immunizations, and patient education. This includes clinicians recording notes to document the course of care.	Not specifically addressed in the VHA definition. However, the VHA indicates that this process should be mapped to MHS 1.2
1.2.1 – Perform health risk screening	Administer standard risk-screening instrument to determine the beneficiary's health needs. Real-time analysis of beneficiary's responses and risk stratification based on the resulting score enable appropriate services to be identified during the initial interaction.	**2.3 – Pre-Register/Register/ Admit Patient**	This process includes all steps used to register a patient for health care services prior to admittance or check-in at the health care facility or at the time of care. It often serves as a focal point for the collection of patient-related information such as demographics, employment history, insurance, and medical history data.	Not specifically addressed in the VHA definition. However, the VHA indicates that this process should be mapped to MHS 1.2.1
1.2.2 – Assess need for service(s)	Assess current health status through use of standardized tools and algorithms to identify health care needs.	**2.3 – Pre-Register/Register/ Admit Patient**	This process includes all steps used to register a patient for health care services prior to admittance or check-in at the health care facility or at the time of care. It often serves as a focal point for the collection of patient-related information such as demographics, employment history, insurance, and medical history data.	Not specifically addressed in the VHA definition. However, the VHA indicates that this process should be mapped to MHS 1.2.2
1.2.3 – Identify preventive/ screening requirements and services	Identify the appropriate preventive and screening service(s) a beneficiary may require based upon the health risk screen results/stratification.	**3.1 – Provide Direct Patient Care**	The patient is provided direct patient care including patient evaluation and/or treatments, immunizations, and patient education. This includes clinicians recording notes to document the course of care.	Not specifically addressed in the VHA definition. However, the VHA indicates that this process should be mapped to MHS 1.2.3
1.2.4 – Triage to appropriate level of care	Direct beneficiaries to the appropriate level of care or health care service within an appropriate amount of time, using protocols and best practices. In peacetime, this	**2.3 – Pre-Register/Register/ Admit Patient**	This process includes all steps used to register a patient for health care services prior to admittance or check-in at the health care facility or at the time of care. It often serves as a focal point for	Not specifically addressed in the VHA definition. However, the VHA indicates that this

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	includes sending a beneficiary to the same day clinic based on signs and symptoms.		the collection of patient-related information such as demographics, employment history, insurance, and medical history data.	process should be mapped to MHS 1.2.4
1.2.5 – Refer for service(s)	Guide the beneficiary to appropriate health care services/locations and communicate the referral(s) to internal and external providers. (i.e., referral processing)	**2.1 – Process Request for Referral or Service Authorization**	A request for referral or service authorization is fulfilled, based upon a determination of the veteran's needs and location. This includes the steps used to determine if the request is complete and to respond to an inquiry regarding the status of the request.	Same as MHS 1.2.5.
1.3 – Schedule Services and Check-in	Obtain and verify a core set of information (eligibility, enrollment, demographics, PCM, case manager, special programs and personal preferences) and schedule a service or "set" of services for beneficiaries. Check-In occurs when the beneficiary arrives at the care delivery site or service site and all required information is collected and available to perform the service.	**1.0 – Member Management**	Member management includes the processes and activities surrounding the establishment and maintenance of a veteran in the veteran's health care delivery model. Member Management encompasses enrollment, eligibility, benefits, selection of the preferred facility, selection of the primary care provider, and veteran education regarding all aspects of health care.	Core function. Broader, includes "gather patient info and determine eligibility" in order to "obtain and verify a core set of information."
		2.0 – Access Management	Access Management is the processes by which veterans and providers are directed to, and provided, the most appropriate service and level of care consistent with the needs and choices of the veteran, and medical necessity as determined by the provider.	Core function. Broader, includes sub processes for "scheduling services" and "check-in."
		10.0 – Organizational Management	This process provides administration, oversight, evaluation, and improvement of the operations of an organization.	Supporting function. Broader, includes "manage workload (schedules)."
1.3.1 – Establish and maintain schedules	Create and manage schedules within and across the organization (internal and external). Involves managing the mechanics of schedules – for example, schedule maintenance (i.e., building and extending schedule templates), and	**10.1 – Manage Workload**	Not defined.	Broader, although not defined, it could be implied that "manage workload" includes "managing schedules (MHS 1.3.1)." VHA

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	finalizing schedule with providers and services.			may have defined by mid-2002, re-review at that time.
1.3.2 – Retrieve/Verify Patient Information	Collect, record, and update a core set of information to ensure accurate beneficiary identification and health plan information.	**1.1 – Gather Patient Information**	The process in which specific attributes of applicants (e.g., service-connected disability, means test results) are gathered to enroll an applicant/patient. This process also includes gathering of a specified set of demographic data used to identify the individual and to facilitate communication with and education of that individual.	Same as MHS 1.3.2.
		2.3 – Pre-Register/ Register/Admit Patient	This process includes all steps used to register a patient for health care services prior to admittance or check-in at the health care facility or at the time of care. It often serves as a focal point for the collection of patient-related information such as demographics, employment history, insurance, and medical history data.	Broader, includes "collection of patient-related information."
1.3.3 – Verify eligibility	Determine the beneficiary's eligibility to receive services based upon their level of benefit in real time.	**1.2 – Determine Eligibility**	A process that determines an individual's eligibility for care in the VHA healthcare system. It is this process that determines the extent of financial liability (e.g., coordination of benefits) of the veteran, the VHA, and/or a contracted provider or sharing arrangements (such as, the sharing of patient care between facilities). A veteran's eligibility must be verified prior to being enrolled into the VHA healthcare system.	Same as MHS 1.3.3.
1.3.4 – Authorize and Schedule Service(s)	Approval of the service requested is received by integration with the front-end of accounting (i.e., personal financial responsibility for the requested service(s)). Schedule and coordinate appointments and services of various types in multiple locations according to available locations	**2.1 – Process Request for Referral or Service Authorization**	A request for referral or service authorization is fulfilled, based upon a determination of the veteran's needs and location. This includes the steps used to determine if the request is complete and to respond to an inquiry regarding the status of the request.	Narrower, "processing request" is only part of "authorizing & scheduling service (MHS 1.3.4)."

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	and resources. Appropriate authorizations are in place to then allow for payment of the service.	**2.2 – Schedule Appointment**	This process includes the steps used to schedule, reschedule, or cancel a patient health care service. This includes notifying the patient, and the provider, that an appointment has been scheduled.	Same as MHS 1.3.4.
1.3.5 – Check-in	Manage sign-in of patient at the patient care delivery site and manage encounter-related information. During Check-in, all pre-requisite information is verified with the beneficiary and services then can be rendered.	**2.3 – Pre-Register/ Register/Admit Patient**	This process includes all steps used to register a patient for health care services prior to admittance or check-in at the health care facility or at the time of care. It often serves as a focal point for the collection of patient-related information such as demographics, employment history, insurance, and medical history data.	Broader, includes registering (sign-in) of patient "at the time of care."
1.4 – Manage Patient Movement/ Encounter	Arrange and track beneficiary's activities and movement across the continuum of care during peace and military operations. Ensure that the beneficiary's time is spent receiving service rather than waiting to receive it.	**2.0 – Access Management**	Access Management is the processes by which veterans and providers are directed to, and provided, the most appropriate service and level of care consistent with the needs and choices of the veteran, and medical necessity as determined by the provider.	Core function. Broader, includes "tracking patient movement."
1.4.1 – Manage beneficiary encounter	Optimize the beneficiary experience during the encounter through streamlined, well coordinated scheduling and delivery of care. Patient family hand-offs are coordinated with the receiving provider and facility.	**No equivalent mapping**		
1.4.2 – Track and coordinate beneficiary/family movement	Identify the location and organize the movement of any beneficiary receiving services at the point of need in a timely manner.	**No equivalent mapping**		
1.4.3 – Transfer/ Evacuate Patients	Moving patients from one facility to another, from one service to another, from one service to another, from one environment to another, and from one level/echelon of care to another. During military evacuation (Casevac) the casualty has been picked up by an aircraft, vehicle,	**2.4 – Discharge (check-out)/Transfer Patient**	This process tracks patient movements during inpatient stays (e.g., bed control) and to discharge patients.	Somewhat relates to transfer, but not evacuate. Narrower, in that "tracking patient movements during inpatient stays" is only a part of "transfer patients

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	or boat for transfer to a higher echelon of care.			(MHS 1.4.3)."
1.5 – Support Beneficiary Services	Orient the beneficiary to their benefits and the available services. In addition, receipt of services is tracked and beneficiary profiles are updated to reflect status.	**5.0 – Veteran Service**	VHA responds to inquiries regarding virtually any aspect of the health care model, as well as providing veterans' authorizations and referrals, and the collection of relevant veteran data. Veteran Service will ensure proactive management (cost and quality) of veterans' health care (e.g., sending reminders for immunizations, mammograms, pap smears, diabetes, and exams). Veteran Service encompasses all veteran touch points.	Core function. Same as MHS 1.5.
1.5.1 – Manage health risk profiles	Develop, maintain, and update beneficiary's health profile.	**No equivalent mapping**		External to the VHA. Veterans Benefits Administration (VBA) does some of this, then sends to the VHA for profiling. Re-review in mid-2002.
1.5.2 – Manage healthcare service completion	Track, document, and follow-up with beneficiaries regarding the achievement of health care services and education.	**5.3 – Conduct Satisfaction Surveys**	Veteran input/feedback is collected in regards to quality, timeliness, safety, and effectiveness of care, and administrative support. The feedback is continually used to improve access to care, quality of care, and administrative processes.	Narrower, "surveys" are only a part of "follow-up with beneficiaries (MHS 1.5.2)." Re-review in mid-2002 as this may become part of VHA 1.0, Member Management.
1.5.3 – Market services to beneficiaries	Market and communicate new and existing information to beneficiaries and eligible population.	**5.2 – Provide Information and Educate Veteran**	The process of providing the veteran with information including definitions and explanations of benefits, directions to other VHA resources, Wellness, Preventative Care, Patient Reminders/Notifications, Remote Care Directions, and/or directions to other components of the veteran health-care model or external	Same as MHS 1.5.3.

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			agencies or departments.	
1.5.4 – Orient/update beneficiaries	Develop and distribute data and information to assist in the health care education of beneficiaries.	**5.2 – Provide Information and Educate Veteran**	The process of providing the veteran with information including definitions and explanations of benefits, directions to other VHA resources, Wellness, Preventative Care, Patient Reminders/Notifications, Remote Care Directions, and/or directions to other components of the veteran health-care model or external agencies or departments.	Same as MHS 1.5.4.
1.5.5 – Respond to and monitor beneficiary inquiries	Identify and evaluate beneficiary inquiries and provide appropriate action and feedback.	**5.1 – Respond to Veteran Inquiries**	A veteran contacts Veteran Service with an inquiry. The inquiry is evaluated, serviced and/or responded to, and then ended.	Same as MHS 1.5.5.
1.6 – Assess Effectiveness of Access to Care	Identify key performance measures and performance standards, measuring the current operating performance along the indicators of quality, cost and cycle-time and improving access to care processes and practices.	**5.3 – Conduct Satisfaction Surveys** **10.3 – Manage/Analyze Performance (e.g., utilization, risk, benchmarking, best practices, patient satisfaction, patient safety, quality of care, costs such as prescription)**	Veteran input/feedback is collected in regards to quality, timeliness, safety, and effectiveness of care, and administrative support. The feedback is continually used to improve access to care, quality of care, and administrative processes. Not defined	Narrower, is only part of MHS 1.6. Narrower, is only part of MHS 1.6. VHA may have defined by mid-2002, re-review at that time.
1.6.1 – Identify desired performance measures and standards	Comprised of selecting process and practice areas to measure. This includes identification of industry benchmarks (internal and external), customer expectations, competitor standards, and targets for performance.	**10.3 – Manage/ Analyze Performance (Includes utilization, risk, benchmarking, best practices, patient satisfaction, patient**	Not defined.	Broader, although not defined, it could be implied that "manage/analyze performance" includes "identifying

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		safety, quality of care, and costs such as prescription)		performance measures and standards (MHS 1.6.1)." VHA may have defined by mid-2002, re-review at that time.
1.6.2 – Develop and deploy improved practices	Develop and implement improved processes and practices.	**3.6 – Provide Clinical Practice Guidelines**	Clinical practice guidelines are provided to clinicians to deliver care to veterans in the most effective manner.	Narrower, is only part of MHS 1.6.2.
		7.7 – Collaborate and Disseminate Research	Process by which drug, clinical, disease, and rehabilitation research information is collaborated/exchanged with partnering institutions (government, non-profit, and commercial) and other stakeholders.	Narrower, "collaborates and disseminates," is only a part of MHS 1.6.2.
1.6.3 – Monitor process and practice performance	Comprised of establishing a feedback loop to continuously improve performance. This includes on-going measurement, monitoring and revision.	**10.3 – Manage/ Analyze Performance (Includes utilization, risk, benchmarking, best practices, patient satisfaction, patient safety, quality of care, and costs such as prescription)**	Not defined.	Broader, although not defined, it could be implied that "manage/analyze performance" includes a "feedback loop to improve performance (MHS 1.6.3)." VHA may have defined by mid-2002, re-review at that time.
1.7 – Support Community Outreach	Provide education services and medical advice to beneficiaries.	**5.0 – Veteran Service**	VHA responds to inquiries regarding virtually any aspect of the health care model, as well as providing veterans' authorizations and referrals, and the collection of relevant veteran data. Veteran Service will ensure proactive management (cost and quality) of veterans' health care (e.g., sending reminders for immunizations, mammograms, pap smears, diabetes, and exams). Veteran Service encompasses all veteran touch points.	Core function. Same as MHS 1.7.

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MHS BP Model	MHS BP Definition	* VHA BP Mapping Decision	VHA BP Definition	** Comments
1.7.1 – Provide health services and education	Provide wellness and disease specific services and education to a defined, targeted population.	**5.2 – Provide Information and Educate Veteran**	The process of providing the veteran with information including definitions and explanations of benefits, directions to other VHA resources, Wellness, Preventative Care, Patient Reminders/Notifications, Remote Care Directions, and/or directions to other components of the veteran health-care model or external agencies or departments.	Narrower, providing information and educating "the veteran," is only a part of the "targeted population (MHS 1.7.1)."
1.7.2 – Track and manage health services and education	Track and manage beneficiary inquiries and provide education tools based on inquiries.	**5.1 – Respond to Veteran Inquiries**	A veteran contacts Veteran Service with an inquiry. The inquiry is evaluated, serviced and/or responded to, and then ended.	Same as MHS 1.7.2.
		5.2 – Provide Information and Educate Veteran	The process of providing the veteran with information including definitions and explanations of benefits, directions to other VHA resources, Wellness, Preventative Care, Patient Reminders/Notifications, Remote Care Directions, and/or directions to other components of the veteran health-care model or external agencies or departments.	Narrower, providing information & education is only a part of "providing education tools (MHS 1.7.2)."
2.0 – Provision of Health Services	Processes that fundamentally shift the caregiver's focus from illness care to illness prevention and wellness promotion in order to achieve the optimal health status for individuals and populations.			
2.1 – Assess Beneficiary Health Status	Assess Beneficiary Health Status involves determining the beneficiary's health, functional and risk status using an issues-based approach. Assessment of health status is both on-going and episodic. The health risk assessment tool is a standardized set of health questions completed by each beneficiary on entry, and risk level is determined by population health studies.	**3.0 – Patient Care Services**	Patient Care Services encompasses the processes by which patients are provided healthcare services (e.g., primary and ambulatory, mental health, extended care, remote care, and nursing home) in a seamless manner.	Core function. Broader, does much more than MHS 2.1.

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MHS BP Model	MHS BP Definition	* VHA BP Mapping Decision	VHA BP Definition	** Comments
2.1.1 – Evaluate Beneficiary Health Status	Completion of the health risk assessment tool by the beneficiary and assignment to the appropriate risk level; evaluation by PCM/provider at point of contact.	**3.1 – Provide Direct Patient Care**	The patient is provided direct patient care including patient evaluation and/or treatments, immunizations, and patient education. This includes clinicians recording notes to document the course of care.	Broader, does much more than MHS 2.1.1.
2.1.2 – Monitor Health Status/Progress	A proactive and ongoing process to modify beneficiary care, as indicated, based on beneficiary progress.	**3.1 – Provide Direct Patient Care**	The patient is provided direct patient care including patient evaluation and/or treatments, immunizations, and patient education. This includes clinicians recording notes to document the course of care.	Broader, does much more than MHS 2.1.2.
2.1.3 – Provide Outreach/Follow-Up with Beneficiaries	Structured and planned communication between members of the health care team and the beneficiary with the goal to optimize beneficiary outcomes.	**3.0 – Patient Care Services**	Patient Care Services encompasses the processes by which patients are provided healthcare services (e.g., primary and ambulatory, mental health, extended care, remote care, and nursing home) in a seamless manner.	Core function. Broader, does much more than MHS 2.1.3.
		3.1 – Provide Direct Patient Care	The patient is provided direct patient care including patient evaluation and/or treatments, immunizations, and patient education. This includes clinicians recording notes to document the course of care.	Broader, does much more than MHS 2.1.3.
		5.2 – Provide Information and Educate Veteran	The process of providing the veteran with information including definitions and explanations of benefits, directions to other VHA resources, Wellness, Preventative Care, Patient Reminders/Notifications, Remote Care Directions, and/or directions to other components of the veteran health-care model or external agencies or departments.	Narrower, "provide info" is only a part of "outreach (MHS 2.1.3)."
2.2 – Plan Health Services	Create an individualized, issue-focused plan of services that utilizes the appropriate level of care and resources to ensure quality and cost-effective outcomes. All plans of services will incorporate care, case,	**3.0 – Patient Care Services**	Patient Care Services encompasses the processes by which patients are provided healthcare services (e.g., primary and ambulatory, mental health, extended care, remote care, and nursing home) in a seamless manner.	Core function. Broader, includes "provide clinical practice guidelines" and "access health summary" in

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	wellness and disease management strategies.			order to "plan health services."
2.2.1 – Assess Appropriate Guidelines/Protocols and Determine Most Appropriate Intervention(s)	The process of providing current and accurate decision-support tools to providers to assist their choosing the most appropriate level and location of service to achieve the best beneficiary outcome.	**3.1 – Provide Direct Patient Care**	The patient is provided direct patient care including patient evaluation and/or treatments, immunizations, and patient education. This includes clinicians recording notes to document the course of care.	Broader, does much more than MHS 2.2.1. Is a weak map now, but may be enhanced by mid-2002.
2.2.2 – Collaborate/ Partner with Beneficiary	Establishing a relationship between the provider and beneficiary that will support successful implementation of the plan of health services.	**3.1 – Provide Direct Patient Care**	The patient is provided direct patient care including patient evaluation and/or treatments, immunizations, and patient education. This includes clinicians recording notes to document the course of care.	Broader, includes "patient education" which facilitates "establishing a relationship (MHS 2.2.2).
2.2.3 – Plan Medical Mission	Identify capabilities, training needs, resources, and evacuation plans necessary to maintain a successful mission	**No equivalent mapping**		VHA will look at this in mid-2002.
2.3 – Deliver Health Services	A process that provides the beneficiary and family with information and health services in a timely, productive and effective manner that achieves desired outcomes and maximizes force readiness.	**3.0 – Patient Care Services**	Patient Care Services encompasses the processes by which patients are provided healthcare services (e.g., primary and ambulatory, mental health, extended care, remote care, and nursing home) in a seamless manner.	Core function. Same as MHS 2.3.
		3.1 – Provide Direct Patient Care	The patient is provided direct patient care including patient evaluation and/or treatments, immunizations, and patient education. This includes clinicians recording notes to document the course of care.	Broader, does much more than MHS 2.3.
		5.0 – Veteran Service	VHA responds to inquiries regarding virtually any aspect of the health care model, as well as providing veterans' authorizations and referrals, and the collection of relevant veteran data. Veteran Service will ensure proactive	Core function. Broader, includes "provide info and educate patient" in order to "provide beneficiary with info."

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			management (cost and quality) of veterans' health care (e.g., sending reminders for immunizations, mammograms, pap smears, diabetes, and exams). Veteran Service encompasses all veteran touch points.	
		5.2 – Provide Information and Educate Veteran	The process of providing the veteran with information including definitions and explanations of benefits, directions to other VHA resources, Wellness, Preventative Care, Patient Reminders/Notifications, Remote Care Directions, and/or directions to other components of the veteran health-care model or external agencies or departments.	Narrower, is only part of MHS 2.3.
2.3.1 – Conduct Beneficiary/Family Education	Providing the beneficiary and family with educational materials about their wellness and plan of health services.	**3.1 – Provide Direct Patient Care**	The patient is provided direct patient care including patient evaluation and/or treatments, immunizations, and patient education. This includes clinicians recording notes to document the course of care.	Broader, does much more than MHS 2.3.1.
		5.2 – Provide Information and Educate Veteran	The process of providing the veteran with information including definitions and explanations of benefits, directions to other VHA resources, Wellness, Preventative Care, Patient Reminders/Notifications, Remote Care Directions, and/or directions to other components of the veteran health-care model or external agencies or departments.	Same as MHS 2.3.1.
2.3.2 – Coach Beneficiary in Self-Management and Compliance	Providing beneficiary with clear expectations for their participation in the care plan, and implications of non-compliance	**3.1 – Provide Direct Patient Care**	The patient is provided direct patient care including patient evaluation and/or treatments, immunizations, and patient education. This includes clinicians recording notes to document the course of care.	Broader, does much more than MHS 2.3.2. Weak map now, but may be enhanced in mid-2002.
2.3.3 – Initiate Care Plan and Perform	Treatment or service is performed by health care provider on/to a beneficiary, either	**3.1 – Provide Direct Patient Care**	The patient is provided direct patient care including patient evaluation and/or treatments,	Same as MHS 2.3.3.

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Intervention or Service	virtually or face-to-face.		immunizations, and patient education. This includes clinicians recording notes to document the course of care.	
2.4 – Manage Information/ Manage Documentation	A clinical documentation process that occurs as a byproduct of the delivery of health services. Information in the health record is standardized and easily accessed from multiple sites to meet the needs of a mobile population. Information flows within the MHS, and to and from civilian entities.	**3.0 – Patient Care Services**	Patient Care Services encompasses the processes by which patients are provided healthcare services (e.g., primary and ambulatory, mental health, extended care, remote care, and nursing home) in a seamless manner.	Core function. Broader, includes "clinicians documenting course of care."
2.4.1 – Document Care Plans and Delivery at Time of Service	Record the assessment, plan, intervention and outcomes whenever and wherever care is delivered.	**3.1 – Provide Direct Patient Care** **3.2 – Enter and Track Orders**	The patient is provided direct patient care including patient evaluation and/or treatments, immunizations, and patient education. This includes clinicians recording notes to document the course of care. Clinicians can order and track consults and procedures including lab tests, medications, diets, and radiology. This includes the capability to access drug formulary and to identify potential interactions including: drug-drug, drug-dosage, drug-overlap, drug-lab, and drug-allergy.	Broader, includes "clinicians recording notes" which is "documenting Care Plans (MHS 2.4.1)." Narrower, this is only a piece of MHS 2.4.1.
2.4.2 – Ensure Documentation Meets Standards	Clinical documentation is complete utilizing common lexicon and templates.	**3.3 – Access Health Summary, Integrated Longitudinal Patient Record**	A wide range of integrated health information related to a particular patient including demographic data, allergies, current active medical problems, laboratory results, and past medical history is securely accessed by authorized users. This process includes the capability to remind providers and patients about health maintenance schedules.	Broader than MHS 2.4.2. This process includes reminding providers. Re-review in mid-2002.
2.4.3 – Manage Information Flow to/from Civilian	Information required for beneficiary care in the civilian sector is supplied by the MHS, and clinical and cost information returns to	**3.3 – Access Health Summary, Integrated Longitudinal Patient**	A wide range of integrated health information related to a particular patient including demographic data, allergies, current active	Broader, "access health summary" implies that health information is

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Providers	the MHS from the civilian sector.	**Record**	medical problems, laboratory results, and past medical history is securely accessed by authorized users. This process includes the capability to remind providers and patients about health maintenance schedules.	available to providers, including "civilian providers (MHS 2.4.3)."
2.4.4 – Provide Care Team with Access to Beneficiary Health Information	Results and output from ancillary services and all members of the care team are accessible 24/7.	**3.3 – Access Health Summary, Integrated Longitudinal Patient Record**	A wide range of integrated health information related to a particular patient including demographic data, allergies, current active medical problems, laboratory results, and past medical history is securely accessed by authorized users. This process includes the capability to remind providers and patients about health maintenance schedules.	Broader, although not defined, it could be implied that "integrated health info on a particular patient" includes "results and output from ancillary services (MHS 2.4.4)."
2.5 – Coordinate and Integrate Health Services	Coordinate and Integrate Health Services involves optimizing utilization of services to achieve the desired beneficiary outcomes and promote Maximum Force Readiness.	**2.0 – Access Management** **10.0 – Organizational Management**	Access Management is the processes by which veterans and providers are directed to, and provided, the most appropriate service and level of care consistent with the needs and choices of the veteran, and medical necessity as determined by the provider. This process provides administration, oversight, evaluation, and improvement of the operations of an organization.	Core function. Broader, includes "tracking of patient movements" in order to "support beneficiary movement." Supporting function. Broader, includes "manage performance" in order to "achieve desired outcomes."
2.5.1 – Manage Transition of Provision of Health Services Throughout MHS Continuum	Support beneficiary movement to different sites and levels of care throughout the MHS continuum.	**2.4 – Discharge (check-out)/Transfer Patient**	This process tracks patient movements during inpatient stays (e.g., bed control) and to discharge patients.	Narrower, "transfer patients" is only a part of "support beneficiary movement (MHS 2.5.1)." VHA will enhance in mid-2002 with VHA 3.1.
2.5.2 – Manage Services/ Programs	Utilize evidence-based decision tools and management systems to optimize outcomes	**3.1 – Provide Direct Patient Care**	The patient is provided direct patient care including patient evaluation and/or treatments,	Broader, does much more than MHS 2.5.2.

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for Individuals and Populations	for individual beneficiaries and targeted populations.		immunizations, and patient education. This includes clinicians recording notes to document the course of care.	Weak map now, VHA will enhance in mid-2002. Re-review at that time.
2.6 – Ensure Quality of Health	An ongoing process of determining metrics, analyzing data and providing feedback to individual providers in a manner that supports improvement of the quality of services provided to beneficiaries. Information and data collected facilitates meeting regulatory requirements for credentialing and accreditation.	**10.0 – Organizational Management**	This process provides administration, oversight, evaluation, and improvement of the operations of an organization.	Supporting function. Broader, includes "incident reporting, manage performance, and ensure compliance with standards" in order to "ensure quality of health."
		11.0 – Provider Management	This process establishes a network of VA and Non-VA providers and maintains a core set of information including: forecasting, identification, contracting, credentialing, and privileging.	Supporting function. Broader, includes "maintain credentials and privileges."
2.6.1 – Manage/Report Incidents	The process of identifying and tracking variations in provision of health services.	**10.5 – Manage Patient Safety (Incident Reporting)**	Not defined.	Although not defined, the title suggests that this VHA sub-process is the same as MHS 2.6.1. VHA may have defined by mid-2002, re-review at that time.
2.6.2 – Monitor Performance Against Standards	With provider input, creating metrics, collecting and analyzing data, and providing feedback to providers at the individual/panel/facility or population level.	**10.3 – Manage/ Analyze Performance (e.g., utilization, risk, benchmarking, best practices, patient satisfaction, patient safety, quality of care, costs such as prescription)**	Not defined.	Although not defined, the title suggests that this VHA sub-process is the same as MHS 2.6.2. VHA may have defined by mid-2002, re-review at that time.
		10.6 – Ensure	Not defined.	Broader, although not

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		Compliance with Environmental and Public Health Standards		defined "ensure compliance with public health standards" Could imply that "performance is being measured against standards (MHS 2.6.2)." VHA may have defined by mid-2002, re-review at that time.
		11.4 – Maintain Provider Profiles (unique Ids, demographic info., payment arrangements)	Not defined.	Narrower, is only part of MHS 2.6.2 VHA may have defined by mid-2002, re-review at that time.
2.6.3 – Meet Regulatory Requirements (Credentialing and Accreditation)	The process of documenting provider education to support credentialing, and collecting data on improvement efforts.	**11.3 – Maintain Credentials & Privileges**	Not defined.	Narrower, "maintaining credentials & privileges" is only a part of "credentialing & accreditation (MHS 2.6.3)." VHA may have defined by mid-2002, re-review at that time.
3.0 – Population Health Management	Processes which optimize the health, health planning, and health management of all beneficiaries (retirees, dependents, and active duty members).	**7.0 – Research and Development**	Medical research is administered and conducted.	Broader, not a strong word match. VHA will enhance in mid-2002, re-review at that time.
3.1 – Define/Assess Population	The process of defining and assessing a given population requires that the population is identified through some means e.g. enrollment. Health/risk screening is designed to elicit information from and about the identified population regarding environmental threats, certain disease states,	**11.1 – Forecast Health Service Needs**	Not defined.	Sub-process of Provider Management. Same as MHS 3.1. VHA will enhance in mid-2002, re-review at that time.

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	conditions, activities, and behaviors/patterns that can influence health status. A health risk profile and/or cost risk analysis is completed to target a given population.			
3.1.1 – Assess Population Status & Stratify Population	Analyze assessment data to determine the health care needs of the population and define logical groupings.	**11.1 – Forecast Health Service Needs**	Not defined.	Broader, although not defined, it could be implied that "forecast health service needs" includes "determining health care needs (MHS 3.1.1)." VHA may have defined by mid-2002, re-review at that time.
3.1.2 – Develop and manage health risk screening processes	Develop screening process that includes review of the population's initial and ongoing health history, immunizations, heredity/environmental risks, lifestyle, use of the healthcare system, and self-management capabilities.	**No equivalent mapping**		R&D does some of this. VHA will update in mid-2002 at the Population Health level, re-review this at that time.
3.1.3 – Identify baseline population	Each beneficiary must be enrolled in the system in order to establish the baseline population with whom the DOD will interact.	**No equivalent mapping**		R&D does some of this. VHA will update in mid-2002 at the Population Health level, re-review this at that time.
3.1.4 – Identify force health threats	Identify population health management issues that might interrupt normal military operations.	**No equivalent mapping**		R&D does some of this. VHA will update in mid-2002 at the Population Health level, re-review this at that time.
3.1.5 – Identify and prioritize targeted populations	Utilizing appropriate tools identify the characteristics, attributes, genetic dispositions, and needs of groups and sub-groups of the targeted population for new care management practices.	**No equivalent mapping**		R&D does some of this. VHA will update in mid-2002 at the Population Health level, re-review this at that time.

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3.1.6 – Identify public health threats	Identify medical and environmental conditions that may impact the population's well being.	**No equivalent mapping**		R&D does some of this. VHA will update in mid-2002 at the Population Health level, re-review this at that time.
3.1.7 – Manage the population database/maintain registry of targeted population	PHM team will utilize a centralized source of population data that is fed by Provision of Care, Access to Care, and Business activities. They will be responsible for assessing the quality of data for population studies, and making recommendations for specific data element inclusion or exclusion. PHM teams will also identify a subset within the centralized database of the targeted populations for new programs/research/interventions.	**No equivalent mapping**		R&D does some of this. VHA will update in mid-2002 at the Population Health level, re-review this at that time.
3.2 – Develop Population Management Practices	A continuous process of developing tools, models, programs, and processes to support population health management, based on analysis of population health data and research.	**3.0 – Patient Care Services**	Patient Care Services encompasses the processes by which patients are provided healthcare services (e.g., primary and ambulatory, mental health, extended care, remote care, and nursing home) in a seamless manner.	Core function. Broader, includes "providing clinical guidelines."
		6.0 – Clinician and Student Education	This function includes the establishment and maintenance of academic affiliations and training of the health workforce to ensure that the education programs contribute to the mission of serving the needs of America's veterans.	Core function. Broader, includes "educate clinician."
		7.0 – Research and Development	Medical research is administered and conducted.	Core function. Broader, includes "conduct clinical trials" and "assess health care services."
		10.0 – Organizational	This process provides administration, oversight,	Supporting function.

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		Management	evaluation, and improvement of the operations of an organization.	Broader, includes "manage performance with benchmarking."
3.2.1 – Benchmark performance to identify and understand gaps	Benchmark against other programs/initiatives to establish normative range, then self benchmark programs/initiatives for improvement.	**10.3 – Manage/ Analyze Performance (e.g., utilization, risk, benchmarking, best practices, patient satisfaction, patient safety, quality of care, costs such as prescription)**	Not defined.	Broader, although not defined, the title includes "benchmarking (MHS 3.2.1)." VHA may have defined by mid-2002, re-review at that time.
3.2.2 – Develop care models and management programs for targeted populations/ conditions	Working in conjunction with specific clinical staff, develop new care models that support research and targeted populations. This includes all the documentation processes, delivery processes, and evaluation tools necessary to implement new programs.	**7.3 – Conduct Disease Pathology, Diagnosis, and Treatment Research** **7.4 – Conduct Clinical Trials**	Fundamental biological processes are researched to form an understanding of disease pathology, diagnosis, and treatment. Knowledge is gained from determining the effectiveness of novel or unproved therapies using multi-center clinical intervention trials.	Narrower, "conducting disease research" is only a part of "developing care models (MHS 3.2.2). Narrower, "conducting clinical trials" is only a part of "developing care models (MHS 3.2.2)."
3.2.3 – Develop evidenced-based protocols and condition guidelines	A framework for a standardized approach to the multidisciplinary care of an individual with a particular condition. The framework is based on both internal and external research and best practices.	**3.6 – Provide Clinical Practice Guidelines**	Clinical practice guidelines are provided to clinicians to deliver care to veterans in the most effective manner.	Same as MHS 3.2.3.
3.2.4 – Develop referral process for PHM programs	Working in conjunction with specific clinicians, help establish a standard referral process that incorporates population health concepts and research for referrals to population health programs.	**No equivalent mapping.**		
3.2.5 – Develop standards for	Create standards for changes in process and clinical outcome using evidence and	**10.3 – Manage/ Analyze Performance**	Not defined.	Broader than MHS 3.2.5. VHA may have

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process and clinical outcomes/metrics	benchmarked information. Develop measurable indicators that describe the population's health status, response to clinical interventions, and assess the efficiency and effectiveness of the health delivery system.	**(e.g., utilization, risk, benchmarking, best practices, patient satisfaction, patient safety, quality of care, costs such as prescription)**		defined by mid-2002, re-review at that time.
3.2.6 – Develop tools and models for care management initiatives	The implementation of evidence-based guidelines, care models and delivery methods, requires well-developed support tools and a systematic approach to education and change management.	**3.6 – Provide Clinical Practice Guidelines** **6.1 – Plan Health Education Programs**	Clinical practice guidelines are provided to clinicians to deliver care to veterans in the most effective manner. The process by which health education programs are planned and established to ensure that the programs contribute to the mission of serving the needs of America's veterans.	Narrower, "provide clinical guidelines" is only part of "develop tools and models (MHS 3.2.6)." "Narrower," planning health education programs" is only a part of "care management initiatives (MHS 3.2.6).
3.2.7 – Identify initiatives for high prioritized targeted populations	After review of the research, benchmarked information, and population data, specific populations are identified for new programs and initiatives related to clinical, organizational, behavioral and business change.	**13.1 Define/Refine Organization Goals and Implement as Operational Strategies**	Not defined.	Broader than MHS 3.2.7. Very weak mapping, VHA will enhance and may have defined by mid-2002.
3.2.8 – Recommend formal incentives for compliance to standards	Recommend programs/rewards that recognize support for desired health promotion outcomes.	**No equivalent mapping.**		Re-review in mid-2002.
3.2.9 – Research internal/external care models and best practices	Conduct literature searches and research the industry identifying successful and pertinent care models currently being utilized as potential baseline for use.	**7.5 – Assess Health Care Services**	The quality, effectiveness, efficiency, and accessibility of health care services for veterans are researched and ultimately improved. This process includes assessment of patient outcomes and health care cost.	Same as MHS 3.2.9.

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		7.7 – Collaborate and Disseminate Research	Process by which drug, clinical, disease, and rehabilitation research information is collaborated/exchanged with partnering institutions (Government, non-profit, and commercial) and other stakeholders.	Narrower, is a part of MHS 3.2.9.
3.3 – Implement Tools/Manage Processes	The process of taking proactive action or engaging in proactive activities, methods or practices that maximize health status and/or minimize health risk for selected populations and/or population health programs.	**5.0 – Veteran Service**	VHA responds to inquiries regarding virtually any aspect of the health care model, as well as providing veterans' authorizations and referrals, and the collection of relevant veteran data. Veteran Service will ensure proactive management (cost and quality) of veterans' health care (e.g., sending reminders for immunizations, mammograms, pap smears, diabetes, and exams). Veteran Service encompasses all veteran touch points.	Core function. Broader, includes "educate patients" in order to "minimize health risks."
		6.0 – Clinician and Student Education	This function includes the establishment and maintenance of academic affiliations and training of the health workforce to ensure that the education programs contribute to the mission of serving the needs of America's veterans.	Core function. Broader, includes "educate clinicians" and "plan health education programs" in order to "minimize health risks."
		7.0 – Research and Development	Medical research is administered and conducted.	Core function. Broader, includes "disseminate research" in order to "gain clinician consensus" and to "support outreach programs."
		10.0 – Organizational Management	This process provides administration, oversight, evaluation, and improvement of the operations of an organization.	Supporting function. Broader, includes "patient safety" and "compliance with

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				environmental standards" in order to "identify health risks."
3.3.1 – Educate patients concerning new models/ practices	Using well designed methods and tools instruct patients on how they can adapt and can contribute to new practices that will increase their level of wellness and avoid illness.	**5.2 – Provide Information and Educate Veteran**	The process of providing the veteran with information including definitions and explanations of benefits, directions to other VHA resources, Wellness, Preventative Care, Patient Reminders/Notifications, Remote Care Directions, and/or directions to other components of the veteran health-care model or external agencies or departments.	Same as MHS 3.3.1.
3.3.2 – Ensure deployment readiness	Ensure that there is the capability for surveillance of troop readiness (e.g. immunizations) and environmental conditions which will enable rapid deployment and support of troops in the theatre.	**No equivalent mapping**		
3.3.3 – Gain clinician consensus/buy-in of new practices	Educate and support clinicians through the change management process as new initiatives are implemented.	**6.3 – Educate Clinicians and Students**	Health care professionals and students are educated.	Narrower, "educate clinicians" is only part of the "change management process (MHS 3.3.3)."
3.3.4 – Implement self-management programs	Create and deploy mechanisms to develop accountability for ones own health/condition management plan.	**3.1 – Provide Direct Patient Care**	The patient is provided direct patient care including patient evaluation and/or treatments, immunizations, and patient education. This includes clinicians recording notes to document the course of care.	Much broader than MHS 3.3.4.
		5.2 – Provide Information and Educate Veteran	The process of providing the veteran with information including definitions and explanations of benefits, directions to other VHA resources, Wellness, Preventative Care, Patient Reminders/Notifications, Remote Care Directions, and/or directions to other components	Broader, includes "provide info to patient" including "wellness and preventive care" in order to "implement a self-management program

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MHS BP Model	MHS BP Definition	* VHA BP Mapping Decision	VHA BP Definition	** Comments
			of the veteran health-care model or external agencies or departments.	(MHS 3.3.4)."
3.3.5 – Manage occupational/ environmental threats	Ensure that there are systems/processes and data available to effectively and efficiently survey various environments to identify health risks.	**10.6 – Ensure Compliance with Environmental and Public Health Standards**	Not defined.	Narrower, includes "compliance with environmental standards" which is only part of MHS 3.3.5. VHA may have defined by mid-2002, re-review at that time.
3.3.6 – Support community outreach programs	Assist health care providers with support and education to improve upon and enhance appropriate community programs.	**6.1 – Plan Health Education Programs**	The process by which health education programs are planned and established to ensure that the programs contribute to the mission of serving the needs of America's veterans.	Same as MHS 3.3.6.
3.4 – Evaluate	A formative and comparative evaluation process for the development and implementation of an evidence-based population health management system.	**7.0 – Research and Development**	Medical research is administered and conducted.	Core function. Broader, includes "managing research, conducting clinical trials, and assessing health services" in order to "develop a formative and comparative evaluation process."
		10.0 – Organizational Management	This process provides administration, oversight, evaluation, and improvement of the operations of an organization.	Supporting function. Broader, includes "assure quality and compliance with public health standards" in order to "monitor and evaluate health programs.
3.4.1 – Develop and implement	Tools for the use of population health management team are created and	**7.5 – Assess Health Care Services**	The quality, effectiveness, efficiency, and accessibility of health care services for veterans	Broader, does much more than MHS 3.4.1.

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measurement data collection, analysis, and reporting tools	standardized. Processes are created that allow for accurate collection, analysis, evaluation, and dissemination of population information.	**10.2 – Assure Quality (includes auditing, peer review, event monitoring, and surveys)**	are researched and ultimately improved. This process includes assessment of patient outcomes and health care cost. Not defined.	Broader, although not defined, it could be implied that "assure quality" includes "developing tools for measurement (MHS 3.4.1)." VHA may have defined by mid-2002, re-review at that time.
3.4.2 – Monitor and ensure quality and appropriateness of services	Providing an information base for proactive analysis and improvement for programs and services.	**7.5 – Assess Health Care Services**	The quality, effectiveness, efficiency, and accessibility of health care services for veterans are researched and ultimately improved. This process includes assessment of patient outcomes and health care cost.	Broader, does much more than MHS 3.4.2.
3.4.3 – Monitor and recommend adjustments to internal programs	Continuous monitoring of internal programs as to quality and effectiveness and providing recommendations for change related to new evidence.	**10.2 – Assure Quality (includes auditing, peer review, event monitoring, and surveys)**	Not defined.	Broader, although not defined, it could be implied that "assure quality" includes "recommending change to internal programs (MHS 3.4.3)." VHA may have defined by mid-2002, re-review at that time.
3.4.4 – Monitor and report compliance to standards and outcomes	Continuous review of programs, methods and compliance to standards related to researched and benchmark data. Reports are created and disseminated to appropriate individuals e.g., Line Command.	**10.2 – Assure Quality (includes auditing, peer review, event monitoring, and surveys)**	Not defined.	Narrower, although not defined, it could be implied that "auditing & event monitoring" is a part of MHS 3.4.4. VHA may have defined by mid-2002, re-review

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				at that time.
		10.3 – Manage/Analyze Performance (e.g., utilization, risk, benchmarking, best practices, patient satisfaction, patient safety, quality of care, costs such as prescription)	Not defined.	Broader, although not defined, "benchmarking" is included in the title which is also mentioned in MHS 3.4.4 definition. VHA may have defined by mid-2002, re-review at that time.
3.4.5 – Monitor research on clinical and operational best practices	Continuous review of the literature and examples of practices that have proven to improve quality of care and reduce costs.	**7.5 – Assess Health Care Services**	The quality, effectiveness, efficiency, and accessibility of health care services for veterans are researched and ultimately improved. This process includes assessment of patient outcomes and health care cost.	Broader, includes "assessment of patient outcomes and costs" in order to "improve quality of care and reduce costs (MHS 3.4.5)."
4.0 – Manage the Business	Processes which reflect the administrative and physical infrastructure support that include financial services, operational support, human resources, managed care contracting, billing, materials management and other administrative services.			
4.1 – Deliver World-Wide Logistics	Managing supplies, equipment, services, technology and facilities from identification of requirements, through acquisition, use and ultimate disposition.	**12.0 – Operations, Logistics, and Supply Chain Management**	This includes the integrated processes and activities involved in the management, procurement, and transportation of facilities, properties, and supplies.	Supporting function. Same as MHS 4.1.
4.1.1 – Manage Equipment, Contract Services and Technology	Acquiring, maintaining, and accounting for equipment and contract services, to include assessment and employment of technology.	**12.2 – Manage Property**	Not defined.	Narrower, although not defined, it could be implied that "managing property" includes "equipment," which

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				would only be a part of MHS 4.1.1. VHA may have defined by mid-2002, re-review at that time.
		12.6 – Manage Supplier Contracts	Not defined.	Narrower, although not defined, it could be implied that "manage supplier contracts" includes "contract services" which would only be a part of MHS 4.1.1. VHA may have defined by mid-2002, re-review at that time.
4.1.2 – Manage Facilities	Managing structures, building utilities and systems, real property to include support for repairs, space assignment, safety and security.	**12.1 – Manage Facilities (tracking & program plans)**	Not defined.	Same as MHS 4.1.2. VHA may have defined by mid-2002, re-review at that time.
		12.3 – Manage Construction Projects	Not defined.	Narrower, although not defined, "construction projects" implies part of "facilities (MHS 4.1.2)." VHA may have defined by mid-2002, re-review at that time.
4.1.3 – Manage Material	Acquiring, tracking, managing, distributing, storing and if required, disposing of supplies. Includes electronic interfaces with suppliers and Defense financial systems.	**12.4 – Purchase Materials & Supplies**	Not defined.	Narrower, "purchasing material" is a part of "managing material (MHS 4.1.3)." VHA may have defined by mid-2002, re-review at that time.

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		12.5 – Store & Distribute Materials (includes inventories of supplies)	Not defined.	Narrower, "Storing & distributing materials" is only part of "Managing materials (MHS 4.1.3)." VHA may have defined by mid-2002, re-review at that time.
		12.6 – Manage Supplier Contracts	Not defined.	Narrower, "Manage contracts" is only part of "manage materials (MHS 4.1.3)." VHA may have defined by mid-2002, re-review at that time.
4.1.4 – Wartime Assemblage Management	Peacetime acquisition, storage, and maintenance of wartime materials, supplies and equipment to meet contingency mission requirements worldwide.	**No equivalent mapping**		VHA maintains sets and packs for emergency services, but not for wartime assemblages. They also are a "back-up" to DoD in emergency situations.
4.2 – Manage Finances	The set of processes that control financial assets, obligations and financial reporting requirements, which includes general ledger, accounts receivable, and accounts payable management.	**4.0 – Financial Management**	Financial management includes the processes related to the transfer of funds between entities involved in the delivery of care to veterans and the VHA budget as it pertains establishing a rate structure, collecting funds, processing provider billing, and processing claims.	Core function. The VA Financial Management department performs these functions. The VHA will look at this in mid-2002. Re-review at that time.
		13.3 – Obtain & Allocate Appropriated Funds	Not defined.	Sub-process of Strategic Planning and Budgeting supporting function. Although not defined,

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				this is only a part of MHS 4.2. VHA may have defined by mid-2002, re-review at that time.
		13.4 – Manage Finances (enable optimal resource allocation)	Not defined.	Sub-process of Strategic Planning and Budgeting supporting function. Same as MHS 4.2 VHA may have defined by mid-2002, re-review at that time.
		13.5 – Formulate & Execute Budget	Not defined.	Narrower, is only part of MHS 4.2. VHA may have defined by mid-2002, re-review at that time.
4.2.1 – Assure Accounting Controls	Implementing and monitoring comprehensive accounting controls for all financial operations.	**13.4 – Manage Finances (enable optimal resource allocation)**	Not defined.	Broader, although not defined, "managing finances" implies that "accounting controls (MHS 4.2.1)" are being used. VHA may have defined by mid-2002, re-review at that time.
4.2.2 – Conduct Financial Planning	Programming, planning and budgeting for the MHS.	**13.3 – Obtain & Allocate Appropriated Funds**	Not defined.	Narrower, is only a part of "financial planning (MHS 4.2.2)." VHA may have defined by mid-2002, re-review at that time.
		13.4 – Manage	Not defined.	Broader, "managing

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		Finances (enable optimal resource allocation)		finances" encompasses more than just "financial planning (MHS 4.2.2)." VHA may have defined by mid-2002, re-review at that time.
		13.5 – Formulate & Execute Budget	Not defined.	Same as MHS 4.2.2. VHA may have defined by mid-2002, re-review at that time.
4.2.3 – Manage Cash	Managing cash collections and billing.	**4.1 – Process Bills and Collections**	Bills are generated and payment is received for services provided at VA medical facilities.	Broader, includes more than just "managing cash (MHS 4.2.3)."
4.2.4 – Manage Accounts Payable	Accounting for commitments, obligations and disbursements to vendors, suppliers, and providers.	**4.2 – Process and Track Transactions**	Accounting transactions related to patient care services (e.g., payments received from first and third parties, payments made by VA) are recorded or transferred to denial.	Narrower, These are "patient care transactions" which is only part of MHS 4.2.4.
		4.3 – Process Claims	Claims are processed for payment or denial.	Narrower, is only part of MHS 4.2.4.
4.2.5 – Manage Accounts Receivable & Collections	Accounting for all monies owed from patient accounts, reimbursements and any other providers.	**4.1 – Process Bills and Collections**	Bills are generated and payment is received for services provided at VA medical facilities.	Same as MHS 4.2.5.
		4.2 – Process and Track Transactions	Accounting transactions related to patient care services (e.g., payments received from first and third parties, payments made by VA) are recorded or transferred to denial.	Narrower, is only part of MHS 4.2.5.
4.2.6 – Perform General Administrative Management	Managing general day-to-day business operations, which includes budget formation, maintaining decision support systems, documenting business models and process flows, and developing and implementing marketing plans.	**4.0 – Financial Management**	Financial management includes the processes related to the transfer of funds between entities involved in the delivery of care to veterans and the VHA budget as it pertains establishing a rate structure, collecting funds, processing provider billing, and processing claims.	Broader, many other things are being performed beyond that of MHS 4.2.6. VHA will re-visit this in mid-2002, re-review at that

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				time.
4.3 – Manage Human Resources	Recruiting, hiring, and training the MHS personnel. The process also includes managing time keeping and payroll activities, maintaining employee relations and complying with all state and federal employment regulations.	**8.0 – Human Resources**	These processes assist VHA organizations in the application of human resource policies, procedures, programs, and standards. They also provide recruiting, hiring, training, developing, compensating, counseling, and if necessary, dismissal services to staff.	Core function. Same as MHS 4.3.
4.3.1 – Manage Staffing Levels	Recruiting, administering automated time and attendance information systems, and maintaining cost effective staff levels to support the MHS.	**8.1 – Recruit & Hire Staff**	Not defined.	Narrower, "recruiting and hiring" is only part of "managing staff levels (MHS 4.3.1)." VHA may have defined by mid-2002, re-review at that time.
		8.5 – Record Time & Attendance	Not defined.	Narrower, this is only part of MHS 4.3.1. VHA may have defined by mid-2002, re-review at that time.
4.3.2 – Skills Acquisition and Maintenance	Designing, implementing, and managing personnel training programs to meet the current and future needs of the MHS.	**6.0 – Clinician and Student Education**	This function includes the establishment and maintenance of academic affiliations and training of the health workforce to ensure that the education programs contribute to the mission of serving the needs of America's veterans.	Narrower, is only part of MHS 4.3.2. MHS will look in the future to better capture Education & Training Programs.
		8.2 – Conduct Training & Education	Not defined.	Narrower, is only part of MHS 4.3.2. VHA may have defined by mid-2002, re-review at that time.
4.3.3 – Establish and Maintain Certification and	Gathering and maintaining certification and/or licensing information for DoD personnel.	**11.3 – Maintain Credentials & Privileges**	Not defined.	Same as MHS 4.3.3. VHA may have defined by mid-2002, re-review

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Credentialing Information				at that time.
4.3.4 – Manage Employee Compensation	The process of managing employee compensation in compliance with State/Federal employment and payroll regulations.	**8.3 – Manage Employee Benefits** **8.6 – Produce Payroll**	Not defined. Not defined.	Narrower, although not defined, "employee benefits" is only a part of "employee compensation (MHS 4.3.4)." VHA may have defined by mid-2002, re-review at that time. Same as MHS 4.3.4. VHA may have defined by mid-2002, re-review at that time.
4.3.5 – Establish Incentive Programs	The process of designing, implementing and managing employee incentive and promotional programs.	**No equivalent mapping**		VHA will revisit this in mid-2002.
4.3.6 – Conduct Performance Reviews	The process of organizing, planning and conducting personnel performance reviews to provide basis for employee career development.	**No equivalent mapping**		VHA will revisit this in mid-2002.
4.4 – Patient Financial Management	Administering patient billing, claims processing, and reconciliation functions.	**4.0 – Financial Management**	Financial management includes the processes related to the transfer of funds between entities involved in the delivery of care to veterans and the VHA budget as it pertains establishing a rate structure, collecting funds, processing provider billing, and processing claims.	Core function. Same as MHS 4.4.
4.4.1 – Perform Patient Billing	Administering and managing patient billing for the MHS including month-end reconciliation's, reporting and payment collection.	**4.1 – Process Bills and Collections** **4.2 – Process and Track Transactions**	Bills are generated and payment is received for services provided at VA medical facilities. Accounting transactions related to patient care services (e.g., payments received from first and third parties, payments made by VA) are recorded	Narrower, is only a part of MHS 4.4.1. Narrower, is a piece of MHS 4.4.1.

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MHS BP Model	MHS BP Definition	* VHA BP Mapping Decision	VHA BP Definition	** Comments
			or transferred to denial.	
4.5 – Perform Medical Management	Confirming resources, utilization and cost management programs to support the objectives of managed care contracting and/or associated risk management. Programs support compliance with health plan coverage, reimbursement and benefit provisions.	**10.0 – Organizational Management**	This process provides administration, oversight, evaluation, and improvement of the operations of an organization.	Supporting function. Entire "organizational management" is much broader than "medical management (MHS 4.5)."
		11.0 – Provider Management	This process establishes a network of VA and Non-VA providers and maintains a core set of information including: forecasting, identification, contracting, credentialing, and privileging.	Supporting function. Narrower, "provider management" is only a part of "medical management (MHS 4.5)."
4.5.1 – Manage Utilization Levels	Performing patient pre-authorizations, provider referral authorizations, and patient pre-certification of overused areas. Also includes catastrophic/high risk case management and coordination of appeals.	**10.3 – Manage/ Analyze Performance (Includes utilization, risk, benchmarking, best practices, patient satisfaction, patient safety, quality of care, and costs such as prescription)**	Not defined.	Broader, although not defined, the title includes "utilization." VHA may have defined by mid-2002, re-review at that time.
		10.7 – Manage Caseloads	Not defined.	Narrower, can be implied that "manage caseloads" is a part of "manage utilization levels (MHS 4.5.1)." VHA may have defined by mid-2002, re-review at that time.
4.5.2 – Monitor Medical Performance	Performing patient prospective and concurrent reviews, conducting retrospective case audits, measuring	**7.5 – Assess Health Care Services**	The quality, effectiveness, efficiency, and accessibility of health care services for veterans are researched and ultimately improved. This	Narrower, is a part of MHS 4.5.2.

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	guideline compliance, monitoring service utilization, analyzing provider profiles and identifying new cost/utilization containment programs.		process includes assessment of patient outcomes and health care cost.	
		10.2 – Assure Quality (includes auditing, peer review, event monitoring, and surveys)	Not defined.	Narrower, is part of and overlaps with MHS 4.5.2. VHA may have defined by mid-2002, re-review at that time.
		10.3 – Manage/ Analyze Performance (Includes utilization, risk, benchmarking, best practices, patient satisfaction, patient safety, quality of care, and costs such as prescription)	Not defined.	Same as MHS 4.5.2. VHA may have defined by mid-2002, re-review at that time.
		11.4 – Maintain Provider Profiles (unique Ids, demographic info, payment arrangements)	Not defined.	Narrower, is a piece of MHS 4.5.2. VHA may have defined by mid-2002, re-review at that time.
4.5.3 – Maintain Medical Management Processes	Developing and updating medical policy and procedures, monitoring quality and outcomes of care, monitoring provider service issues and obtaining and maintaining accreditation.	**10.2 – Assure Quality (includes auditing, peer review, event monitoring, and surveys)**	Not defined.	Narrower, is only part of MHS 4.5.3. VHA may have defined by mid-2002, re-review at that time.
		10.3 – Manage/ Analyze Performance (Includes utilization,	Not defined.	Broader, does much more than just "maintain medical management

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		risk, benchmarking, best practices, patient satisfaction, patient safety, quality of care, and costs such as prescription)		process (MHS 4.5.3)." VHA may have defined by mid-2002, re-review at that time.
		10.4 – Manage Privacy, Accuracy and Confidentiality (includes disclosure and consent)	Not defined.	Narrower, is only part of MHS 4.5.3. VHA may have defined by mid-2002, re-review at that time.
		10.5 – Manage Patient Safety	Not defined.	Narrower, is only a piece of MHS 4.5.3. VHA may have defined by mid-2002, re-review at that time.
		10.6 – Ensure Compliance with Environmental & Public Health Standards	Not defined.	Broader, does much more than just "maintain medical management process (MHS 4.5.3)." VHA may have defined by mid-2002, re-review at that time.
		11.3 – Maintain Credentials and Privileges	Not defined.	Narrower, is only part of MHS 4.5.3. VHA may have defined by mid-2002, re-review at that time.
		13.2 – Determine Policy	Not defined.	Narrower, is only part of MHS 4.5.3. VHA may

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				have defined by mid-2002, re-review at that time.
4.6 – Review/Improve Business Management	Assuring that all functions and services are performed in a cost-effective manner and within budgets and scope.	**3.6 – Provide Clinical Practice Guidelines**	Clinical practice guidelines are provided to clinicians to deliver care to veterans in the most effective manner.	Narrower, "providing guidelines" are only a part of MHS 4.6.
		10.0 – Organizational Management	This process provides administration, oversight, evaluation, and improvement of the operations of an organization.	Supporting function. Broader, includes managing the entire organization, not just "business management (MHS 4.6)."
		13.0 – Strategic Planning and Budgeting	The processes that establish and prioritize long-term enterprise goals and objectives, set policy, and formulate and execute the budget.	Supporting function. Broader, does more than just "business management (MHS 4.6)."
4.6.1 – Analyze Execution Performance	Analyzing workload and labor budget variances and making recommendations for improvement.	**13.4 – Manage Finances (enable optimal resource allocation)**	Not defined.	Broader, "managing finances" is much broader than "analyzing execution performance (MHS 4.6.1)." VHA may have defined by mid-2002, re-review at that time.
		13.5 – Formulate & Execute Budget	Not defined.	Broader, includes more than what MHS 4.6.1 does. VHA may have defined by mid-2002, re-review at that time.
4.6.2 – Perform Cost Accounting	Collecting and interpreting costs per unit of service to provide management decision	**13.4 – Manage Finances (enable**	Not defined.	Broader, does much more than just "cost

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	support and other key financial indicators.	**optimal resource allocation)**		accounting (MHS 4.6.2)" is only a part of "managing finances." VHA may have defined by mid-2002, re-review at that time.
4.6.3 – Planning & Forecasting	Planning business re-engineering and process re-design initiatives.	**13.1 – Define/Refine Organizational Goals & Implement as Operational Strategies**	Not defined.	Broader, does a lot more than MHS 4.6.3. VHA may have defined by mid-2002, re-review at that time.
4.6.4 – Conduct Business Research	Collecting and interpreting data to achieve tactical and strategic goals of the MHS, including current trends in healthcare, staff education opportunities and business opportunities and risks.	**No equivalent mapping**		
4.6.5 – Improve Customer Service	Enhancing customer service efforts by implementing efficient processes to eliminate redundant tasks and minimize rework for the patients and providers.	**3.6 – Provide Clinical Practice Guidelines**	Clinical practice guidelines are provided to clinicians to deliver care to veterans in the most effective manner.	Narrower, "providing guidelines" are only a part of "improving customer care (MHS 4.6.5)."
		5.3 – Conduct Satisfaction Surveys	Veteran input/feedback is collected in regards to quality, timeliness, safety, and effectiveness of care, and administrative support. The feedback is continually used to improve access to care, quality of care, and administrative processes.	Narrower, "surveys" is only a part of "improving customer service (MHS 4.6.5)."
4.6.6 – Ensure Regulatory and Licensing Compliance	Ensuring through the MHS legal services that all federal, state, and local government regulations are complied with for all activities throughout the MHS.	**10.6 – Ensure Compliance with Environmental & Public Health Standards**	Not defined.	Narrower, is a piece of MHS 4.6.6. VHA may have defined by mid-2002, re-review at that time.
4.7 – Support Managed Care	The process by which the provider, payer and employer evaluates operating results	**4.0 – Financial Management**	Financial management includes the processes related to the transfer of funds between entities	Core function. Narrower, is only a part

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Contract	and measures utilization of care under a specific contract and identifies steps required to ensure compliance.		involved in the delivery of care to veterans and the VHA budget as it pertains establishing a rate structure, collecting funds, processing provider billing, and processing claims.	of MHS 4.7.
		11.0 – Provider Management	This process establishes a network of VA and Non-VA providers and maintains a core set of information including: forecasting, identification, contracting, credentialing, and privileging.	Supporting function. Narrower, is only a part of MHS 4.7.
4.7.1 – Manage Capitation	Determining capitation services and rates, conducting monthly financial calculations and reconciliation's, distributing payments, performing premium billing activities, and performing period-end risk pool settlements.	**4.4 – Establish Rate Structures**	Rates are determined for services and procedures performed within health care facilities.	Narrower, "establishing rate structures" is only part of MHS 4.7.1. VHA may have defined by mid-2002, re-review at that time.
		13.3 – Obtain & Allocate Appropriated Funds	Not defined.	Broader, although not defined, the title suggests that much more is being done than MHS 4.7.1. VHA may have defined by mid-2002, re-review at that time.
4.7.2 – Manage TRICARE Contracts	Managing contract terms and conditions, tracking profitability, and modeling costs of contracts.	**11.5 – Manage Provider Contracts**	Not defined.	Broader, although not defined, the title suggests that much more is being done than MHS 4.7.2. VHA may have defined by mid-2002, re-review at that time.

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U.S. Department of Defense

MILITARY HEALTH SYSTEM

Military Readiness and Peacetime Health Care

DoD Military Health System

Enterprise Architecture

(Excerpt of Operational View, Section 3 only)

DRAFT

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MHS OPERATIONAL VIEW (OV)

3.1 Introduction

The Operational View of the MHS Enterprise Architecture (EA) is a description of the process model tasks and activities, operational nodes or elements, and information exchange requirements between nodes. It defines the types of information exchanged, the frequency of exchange, which tasks and activities are supported by the information exchanges, and the nature of information exchanges in detail sufficient to ascertain specific interoperability requirements. This section describes four OV products of the MHS EA: the High-Level Operational Concept Description (OV-1), the Operational Node Connectivity Description (OV-2), the Operational Information Exchange Matrix (OV-3) and the Activity Model (OV-5). Specifications for these products can be found in the DoD C4ISR Architecture Framework , which classifies these products as Mandatory products. MHS Operational View (OV) products can be found at the MHS EA web site.

3.2 Products

The OVs encompass a wide spectrum of products. These include high level descriptions of the enterprise's business processes and decomposition of high level processes into business components and further into activities. The "To-Be" model includes a series of information exchange mappings designed to address the flow of information among users, information systems, and databases in the target shared data environment. It focuses on the following:

- defining business operations and operational interchanges
- operations, not who performs them
- structuring operational information flows to allow for identification of common operational needs.

3.2.1 High Level Operational Concept Graphic (OV-1)

The creation of a high-level operational concept is the first step in developing the OV. To best represent the "To-Be" MHS Enterprise Architecture, two distinct but complementary views are necessary:

- The Overarching View of Integrated Healthcare (OV-1). This is a business process view of MHS healthcare delivery and the context in which it operates.
- The Functional View of Integrated Healthcare (OV-1a). This is a functional view of MHS healthcare delivery and the key drivers, partners and associates who interact with MHS information systems.

The OV-1 products convey the operational concept, the vision, that is the impetus for the development of the MHS Enterprise Architecture.

3.2.1.1 Overarching View of Integrated Healthcare (OV-1)

Figure 3.1 shows the high-level Operational View (OV-1) of integrated healthcare. It represents the integrated MHS healthcare system with its business processes, capabilities and resources. The four core processes are the continuum of MHS healthcare in both peacetime and wartime operations. There are many DoD activities, entities and constraints that interact with and/or influence the MHS business processes. Global DoD Tri-Service wartime operations, the environment of the war fighter, include land, sea, air and space MHS healthcare activities. Activities and operations external to DoD include drivers and partners that exchange information, provide or consume resources and influence the actions and capabilities of the MHS. The intent of the integrated MHS healthcare processes is to deliver optimum healthcare to maximize the medical readiness of the DoD war fighter at all times, in all physical environments.

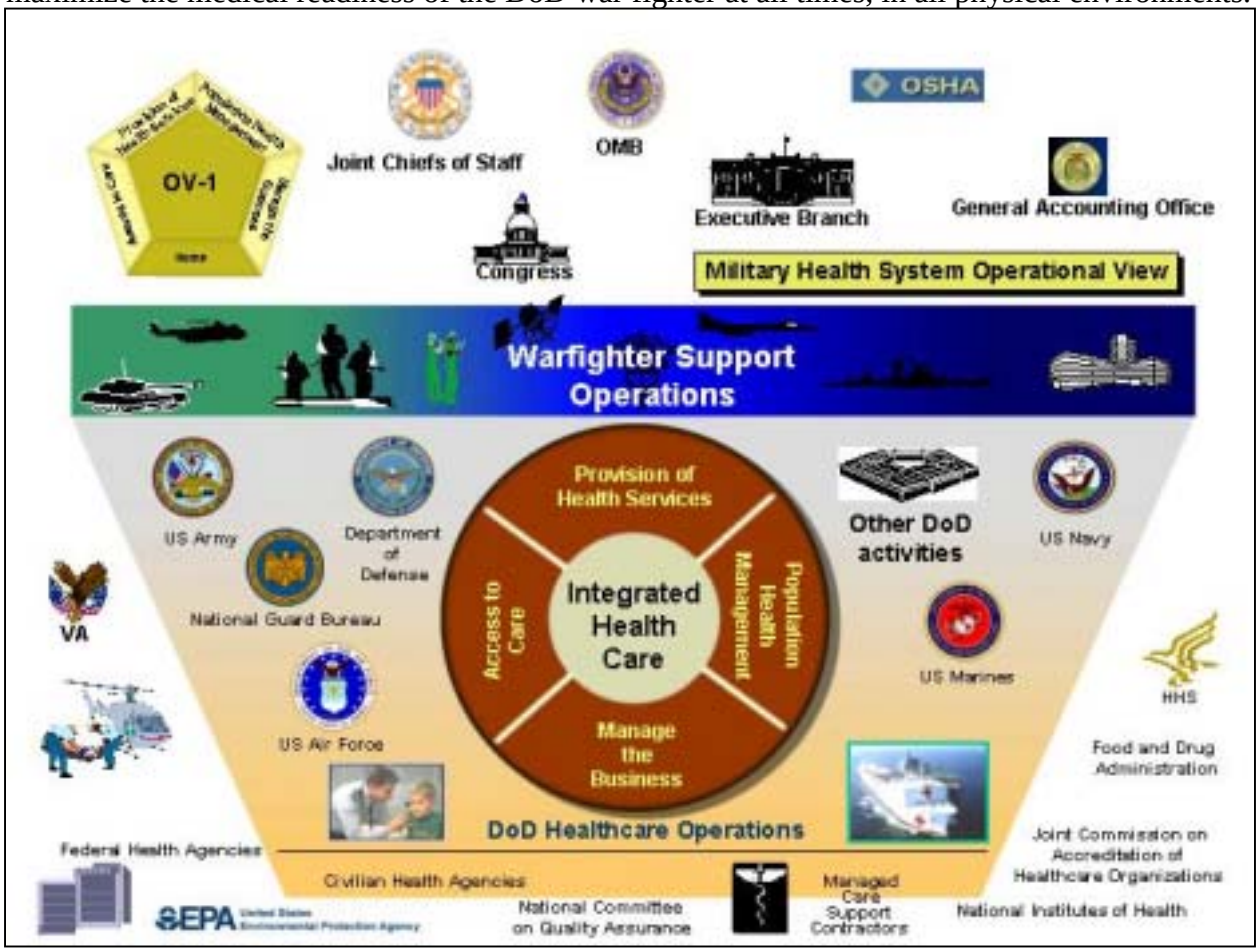


Figure 3-1. Overarching View of Integrated Healthcare – Operational View (OV-1)

Functional View of Integrated Healthcare (OV-1a)

Figure 3.2 shows the Functional View of Integrated Healthcare (OV-1a) and the key drivers, partners and associates who interact with MHS information systems. It represents the integrated MHS healthcare system with its business processes, capabilities and resources. The four core processes are the continuum of MHS healthcare in both peacetime and wartime operations. There are many DoD activities, entities and constraints that entities that provide input or receive output with each the four MHS core processes. Global DoD Tri-Service wartime operations, the environment of the war fighter, include land, sea, air and space MHS healthcare activities. Activities and operations external to DoD include drivers and partners that exchange information, provide or consume resources and influence the actions and capabilities of the MHS. The intent of the integrated MHS healthcare processes is to deliver optimum healthcare to maximize the medical readiness of the DoD war fighter at all times, in all physical environments.

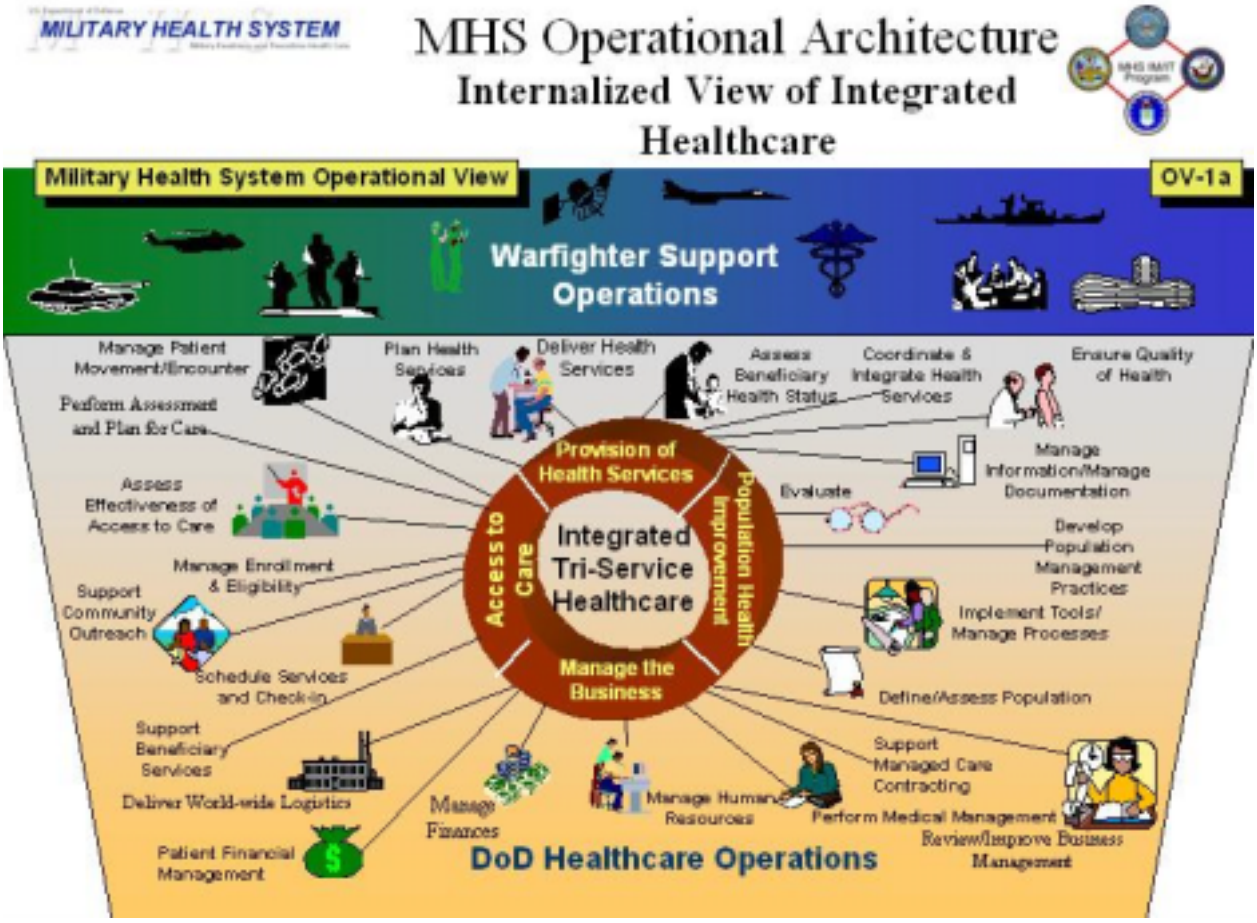


Figure 3-2. Functional View of Integrated Healthcare Operational View (OV-1a)

3.2.2 Operational Node Connectivity Description (OV-2) Products

The main features of the OV-2 products are the operational nodes, represented by ovals, and the information exchanges between them, represented by an arrow indicating the direction of information flow.

Operational Nodes:

- Operational Architecture views need not identify real physical facilities or organizations as nodes.
- The "operational node" concept chosen by the MHS focuses on “virtual” or abstract nodes based on operational roles and functions.
- The intent is to capture generic information exchange types between nodes according to their major roles or actions performed.
- The MHS Operational Node Connectivity Descriptions (OV-2) are decomposed to the activity level of the MHS Future Process Model.
- Operational Node Connectivity Descriptions (OV-2) resemble process modeling techniques, such as IDEF0 information flows.
- Connectivity with external nodes, not strictly within the scope of the subject architecture, is also illustrated. These nodes are sources of information required by nodes within the architecture or are destinations for information produced by nodes within the architecture.
- The MHS EA contains 54 Internal Nodes (42 Management Staff Nodes and 12 Role Nodes) and 5 External Nodes

Information Exchanges:

- Information Exchange arrows indicate only that there is a need for some kind of information transfer between the two connected nodes.
- Information Exchange arrows do *not* indicate how the information transfer is implemented.
- There are approximately 1700 Information Exchanges in the MHS EA
- Information Exchange definitions for these views were derived from:
    - Data “Arrows” from the MHS Functional Area Model - Data (FAM-D) Version 10.23

— Data Entities from the Enterprise Information Architecture Guidelines March 31, 2000.

- The actual implementation of the information transfer may take more than one form; therefore, a single information transfer shown in the Operational View may translate into multiple interfaces or system data exchanges in the Systems View.

- The individual information exchange characteristics are shown more comprehensively on the Operational Information Exchange Matrix (OV-3). See Section 3.2.3.

The MHS Operational Architecture is based on the MHS Future Process Model, which contains four core processes: Access to Care, Provision of Health Services, Population Health Management and Manage the Business, which are further decomposed into 24 components and then into 98 activities. The MHS OV-2 products are at the activity level resulting in 98 individual activity level views.

OV-2 Example

The following example shows one of many paths possible in utilizing Operational Node Connectivity Descriptions. Starting with the MHS Operational Node Connectivity Context Overview, this path goes to the Access to Care Context Overview, to the Schedule Services / Check-in Component Context Overview and finally to the Retrieve/Verify Beneficiary Information Activity OV-2.

The MHS Operational Node Connectivity Context Overview – Figure 3-3 provides an OV-2 "menu" to external interface and core process OV-2s.

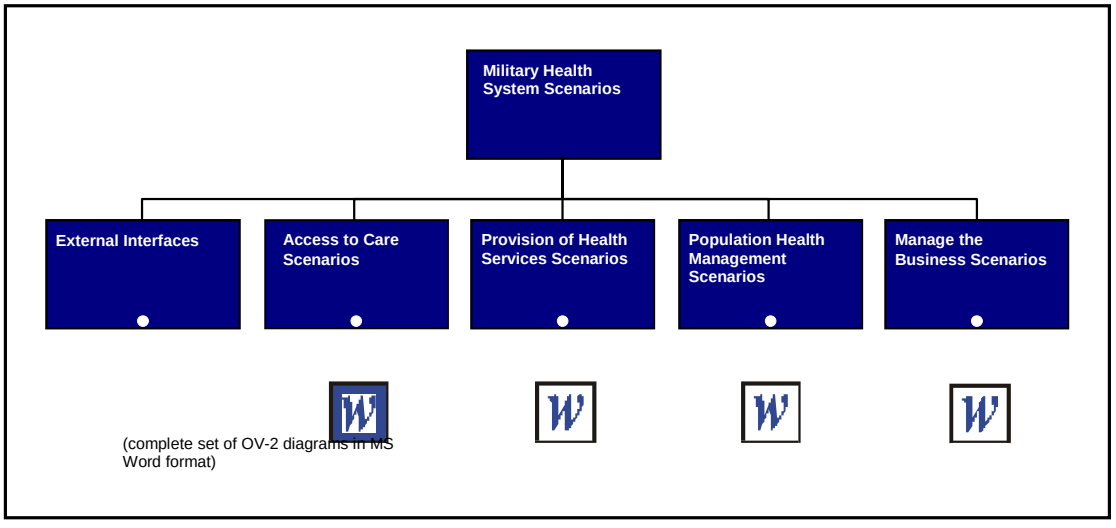


Figure 3-3. OV-2 MHS Operational Node Connectivity Context Overview

The Access to Care Context Overview – Figure 3-4 provides a "menu" to the Access to Care Components. It also provides a menu to the scenarios that were used in developing the OV-2 views for the activities within each component.

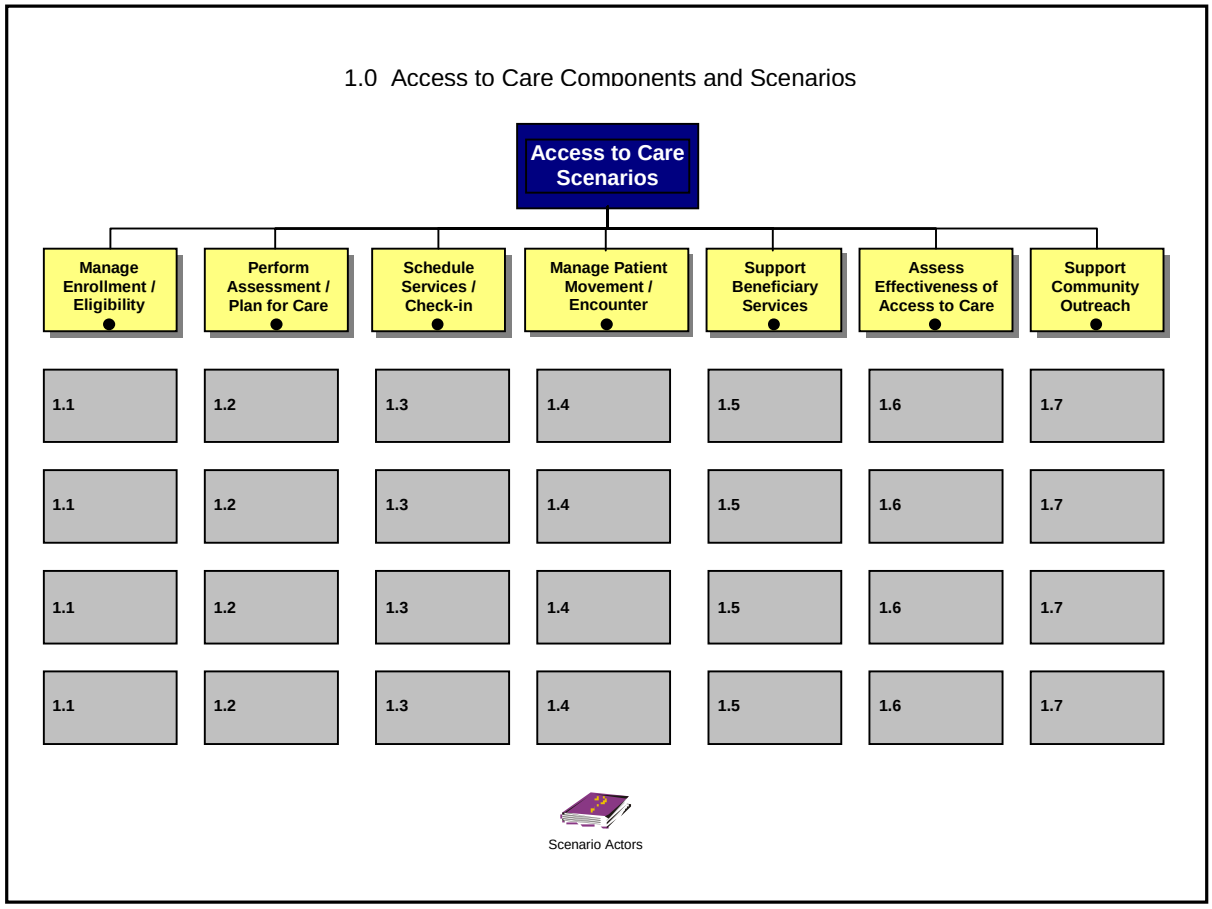


Figure 3-4. OV-2 Access to Care Context Overview

The Schedule Services / Check-in Context Overview – Figure 3-5 provides a "menu" to the OV-2 views for Schedule Services / Check-in activities.

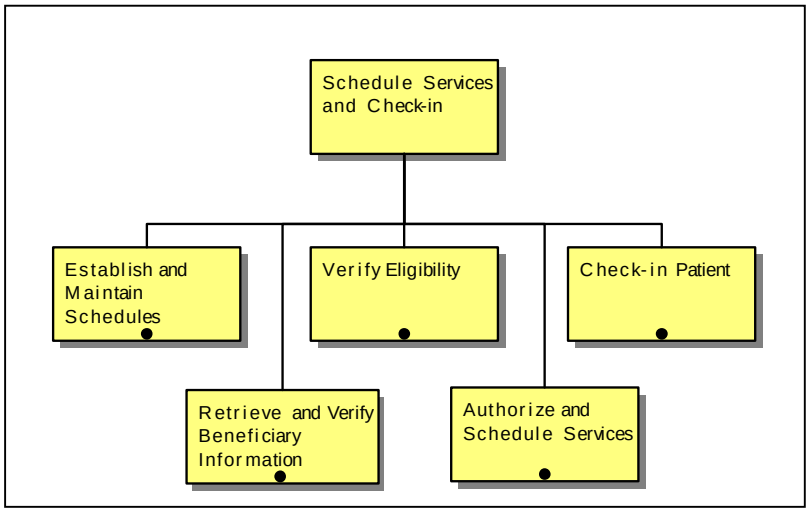


Figure 3-5. Schedule Services / Check-in

The Retrieve/Verify Beneficiary Information OV-2 – Figure 3-6, provides a graphical representation of the Retrieve/Verify Beneficiary Information activity. The nodes, lines and arrow heads all serve as "menus" to detail information about the process related to the nodes, the IERs and the underlying data.

For this activity, the business process is defined as "Ability to collect, record, and update a core set of information to ensure accurate beneficiary identification and health plan information. The IM capabilities associated with this activity are:

- A core set of information can be accessed and verified with each beneficiary encounter and at regular intervals.
- All beneficiary information can be easily accessed to perform verification
- Triggers are established to gather pre-requisite information
- Core registration information can be collected through multiple media (i.e., fax, voice activation, web, e-mail)

Anytime a beneficiary requests service, the very first activity is to collect changes/updates to demographic information. Changes or updates to demographic information in the EMPI node are retrievable by the "Enrollment/Eligibility Management Staff" node, the "Enterprise-wide Registration Staff" node and the "Enterprise-wide Scheduling Staff" node. The "Enterprise-wide Scheduling Staff" node sends a request (using any mechanism of choice) to the "Enterprise Master Person Index (EMPI)" node for verification of the initial demographic information given to the scheduler by the beneficiary. In addition, depending on the context, a request may also be sent for verification to the by "Enrollment/Eligibility Management Staff" node. These requests are shown as "information exchange " arrows. The OV-2 describes "what" is being done. See Figure 4-1 for the SV-1 counterpart. The SV-1 depicts "how" the interaction is being done.

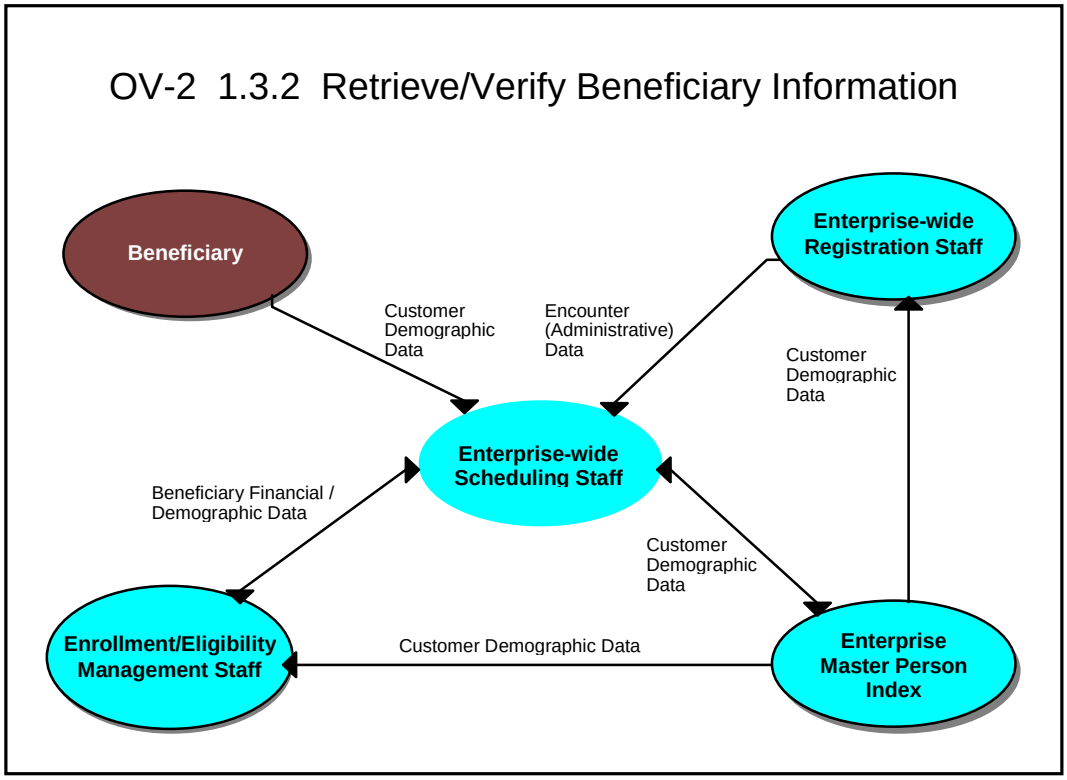


Figure 3-6. Retrieve/Verify Beneficiary Information OV-2

3.2.3 Operational Information Exchange Matrix (OV-3)

Once an Operational Node Connectivity Description (OV-2) is established, the next task is defining the Operational Information Exchange Matrix (OV-3). IERs identify who exchanges what information with whom, why the information is necessary, and what degree of information exchange sophistication is required.

The OV-3 captures requirements for information exchanges between operational nodes by describing, in tabular format, the logical and operational aspects of the information exchanges called for in the OV-2 views. It provides the information and its quality requirements, along with the information source, destination, and supported activity. An Information Exchange Matrix shows such characteristics as substantive content, format, media (voice, imagery, text and message format, etc.), frequency, security classification level, timeliness, and requirements for information system interoperability.

OV-3 Example

The Retrieve/Verify Beneficiary Information (1.3.2) portion of the OV-3: Information Exchange Requirements Database is shown in Table 3-1. The database contains 8 IERs for this activity providing the information for the 4 single and 2 bi-directional arrows in the Retrieve/Verify Beneficiary Information OV-2 shown in Figure 3-6. The OV-3 IER Attribute Definitions are shown in Table 3-2.

Table 3-1. OV-3: Information Exchange Requirements Database Rows for Retrieve/Verify Beneficiary Information (1.3.2)

MHS Operational Architecture											
OV-3: Information Exchange Requirements Database											
IER ID	**Activity Number**	**IER Name**	**Media Type**	**Format**	**Source Node**	**Destination Node**	**Security Class**	**Timeliness**	**Criticality**	**Frequency**	**LISI Level Required**
1122	1.3.2	Beneficiary Financial / Demographic Data	Data		Enrollment/ Eligibility Management Staff	Enterprise-wide Scheduling Staff	SBU	Seconds - Minutes - Days	High	Event-Driven	Level 3
1123	1.3.2	Beneficiary Financial / Demographic Data	Data		Enterprise-wide Scheduling Staff	Enrollment/ Eligibility Management Staff	SBU	Seconds - Minutes - Days	Activity Critical	Event-Driven	Level 3
1124	1.3.2	Customer Demographic Data	Data		Enterprise Master Person Index	Enrollment/ Eligibility Management Staff	SBU	Seconds - Minutes - Days	High	Event-Driven	Level 3
1125	1.3.2	Customer Demographic Data	Data		Enterprise Master Person Index	Enterprise-wide Scheduling Staff	SBU	Seconds - Minutes - Days	High	Event-Driven	Level 3
1126	1.3.2	Customer Demographic Data	Data		Enterprise Master Person Index	Enterprise-wide Registration Staff	SBU	Seconds - Minutes - Days	High	Event-Driven	Level 3
1127	1.3.2	Customer Demographic Data	Data		Enterprise-wide Scheduling Staff	Enterprise Master Person Index	SBU	Seconds - Minutes - Days	Activity Critical	Event-Driven	Level 3
1128	1.3.2	Customer Demographic Data	Data, Audio, Text		Beneficiary	Enterprise-wide Scheduling Staff	SBU	Seconds - Minutes - Days	High	Event-Driven	Level 3
1129	1.3.2	Encounter (Administrative) Data	Data		Enterprise-wide Registration Staff	Enterprise-wide Scheduling Staff	SBU	Seconds	High	Event-Driven	Level 3

Table 3-2. OV-3 Information Exchange Requirements (IER) Matrix

OV-3 Information Exchange Requirements (IER) Matrix IER Attribute Definitions	
Criticality	**Impact if not available**
Activity Critical	Prevents the accomplishment of an activity. Also jeopardizes safety, security, or other requirement designated "critical."
Urgent	Adversely affects the accomplishment of an activity and no work-around solution is known.
High	Adversely affects the accomplishment of an activity but a work-around solution is known.
Routine	Results in user and operational inconvenience or annoyance but does not affect a required activity.
Minor	Any other effect. Considered "nice to have."
Security Classification	**The sensitivity / classification level given to the information being exchanged.**
U	Unclassified
SBU	Sensitive But Unclassified
C	Confidential
S	Secret
TS	Top Secret
SCI	Sensitive Compartmentalized Information
FR	Foreign Releasable
CINC	CINC-defined
Media Type	**The physical form of the information element**
Valid Values	Audio, Text, Graphics, Imagery, Video, Data
Timeliness	**The maximum acceptable time for transmitting the information from the source node to the destination node. May be different under certain conditions, e.g., wartime or peacetime. Values in terms of a unit of time.**
Valid Values	Seconds, Minutes, Hours, Days, Weeks, Months, Quarters, Years
Frequency	**The frequency with which the information must be exchanged between the source and destination nodes. Values based on the DDDS values for timeliness.**
Valid Values	Event-driven, One-time, Quadrennially, Triennially, Biannually, Annually, Semiannually, Quarterly, Monthly, Bimonthly, Weekly, Biweekly, Daily, Twice Daily, Hourly, Twice Hourly
LISI Level	**Levels of Information Systems Interoperability**
0	Isolated Interoperability in a Manual Environment
1	Connected Interoperability in a Peer-to-Peer Environment
2	Functional Interoperability in a Distributed Environment
3	Domain-Based Interoperability in an Integrated Environment
4	Enterprise-Based Interoperability in a Universal Environment

3.2.4 Activity Model (OV-5)

The Activity Model (OV-5) describes the applicable activities associated with the architecture. The models are hierarchical in nature; that is, they begin with a single box that represents the overall activity and proceed successively to decompose the activity to the level required by the purpose of the architecture. The MHS "To-Be" Activity Model contains four core processes, 24 component processes and 98 activity-level processes. The OV-5:

- portrays the scope of the mission domain covered in the model
- contributes greatly to the definition and appropriate understanding of an operational architecture
- can capture valuable information about an architecture
- can promote the necessary common understanding of the subject area under examination.

OV-5 Example

The following example shows one of many paths possible in utilizing OV-5 Views. Starting with the MHS Activity Model Process Overview, this path goes to the Access to Care Component Overview and to the Schedule Services / Check-in Component Activity Overview, the "menu" to the activity level OV-2s. See Section 3.2.2.

The MHS Activity Model Process Overview – Figure 3-7 provides an OV-5 "menu" to core process OV-5s and to the MHS EA Node to Activity CRUD Matrix. This matrix, a cross-reference of activities to nodes and data, indicates where and by whom information is Created, Read, Updated and Deleted (CRUD).

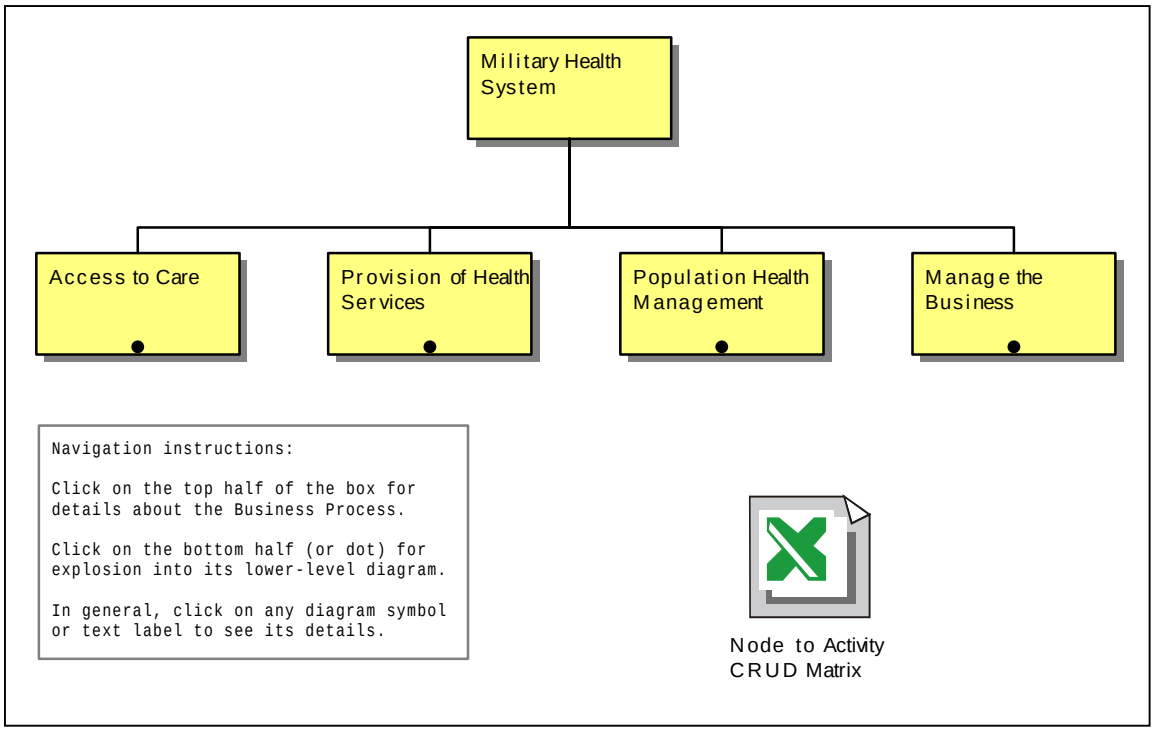


Figure 3-7. MHS Activity Model Process Overview OV-5

The Access to Care Component Overview – Figure 3-8 provides a "menu" to the Access to Care Components.

The Access to Care process is designed to streamline a beneficiary's efforts to receive care and ensure the care received is appropriate in terms of type of care, intensity of care, and location of care. All requisite information to make these assessments will be available to access personnel in order for them to make appropriate decisions at the point of a service request. A successful implementation of this process will result in beneficiaries receiving the right care, at the right time, at the right location for the most appropriate cost.

Basic IM capabilities to support Access to Care include capturing, providing and managing enrollment and eligibility information, registration information, master patient identification information and patient triage. Value-added IM capabilities include capturing, providing and managing customer service, enterprise-wide scheduling and registration, referral management, provider databases, HEDIS and patient registries. State-of-the-art IM capabilities include capturing, providing and managing integration with longitudinal clinical databases, case management and disease management access to national databases and external applications.

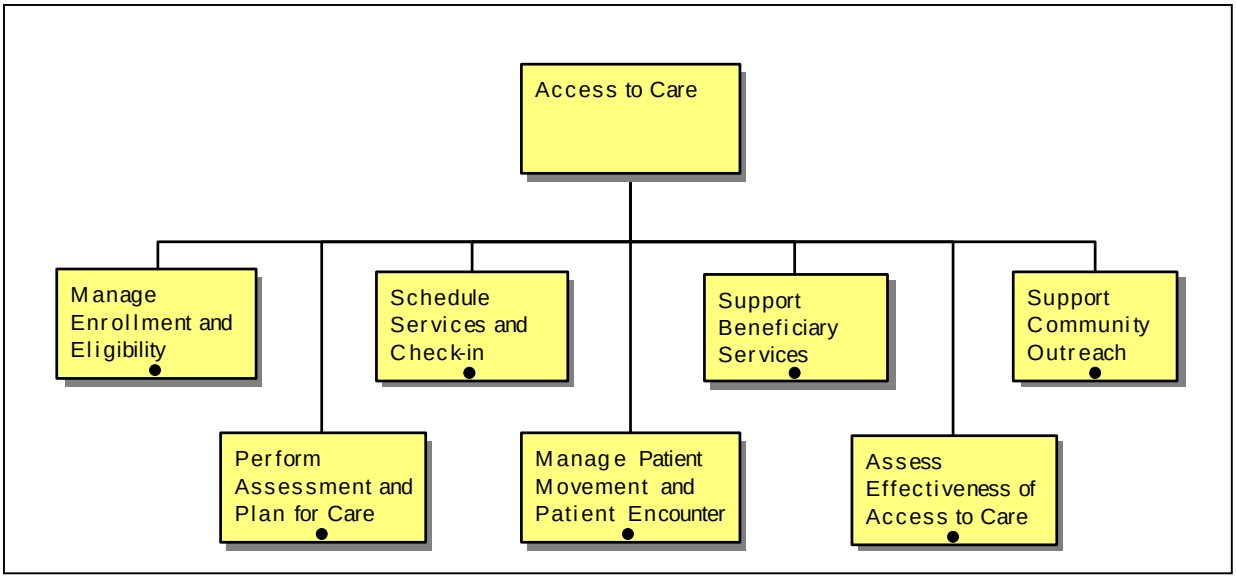


Figure 3-8. Access to Care Component Overview OV-5

The Schedule Services / Check-in Activity Overview – Figure 3-9 provides a "menu" to the OV-2 views for Schedule Services / Check-in activities. See Section 3.2.

The objective of the Schedule Services / Check-in Component is to obtain and verify a core set of information (eligibility, enrollment, demographics, PCM, case manager, special programs and personal preferences) and schedule a service or "set" of services for beneficiaries. Check-In occurs when the beneficiary arrives at the care delivery site or service site and all required information is collected and available to perform the service.

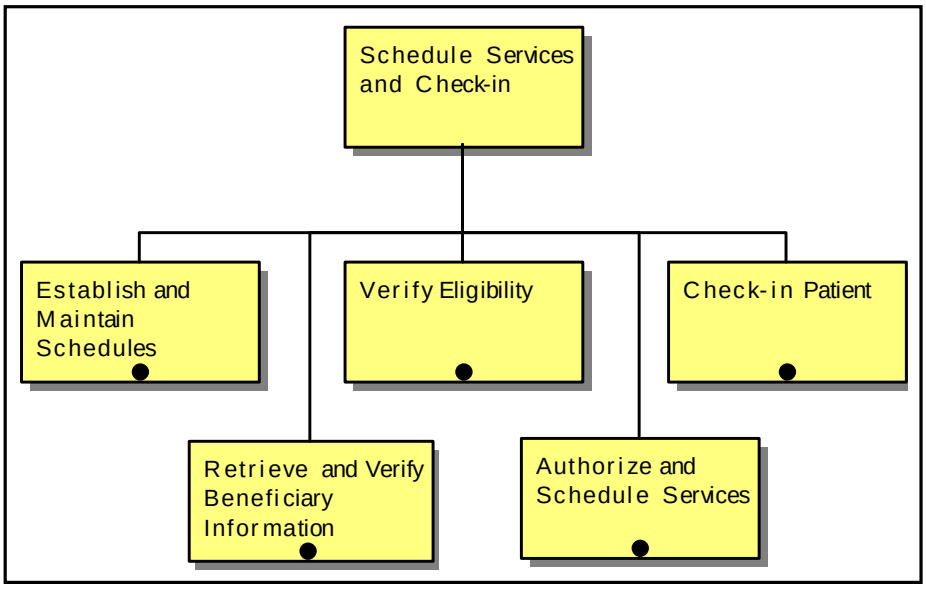


Figure 3-9. Schedule Services / Check–in Activity Overview OV-5

3.3 Traceability

Traceability among the three major architecture views, and traceability among the products, as required by the Framework, is enforced by the language's built-in mechanisms:

- OV-2 operational nodes must trace to "senders" and "receivers" in the IER Matrix (OV-3) and to system nodes in the System Interface Description (SV-1).
- IERs in OV-3s must trace to the operational node relations identified in OV-2. That is, each IER entry in the OV-3 product must relate to an IER in the corresponding OV-2 product.
- SV-1 systems nodes must trace to operational nodes identified in OV-2.
- The SV-4 is the Systems View counterpart to the Activity Model (OV-5)
- The SV-6 focus is on how the data exchanges (OV-3) actually are (or will be) implemented, in system-specific details.
- The SV-6 is related to, and grows out of, the (OV-3). Each of the system data exchanges is keyed back to the operational information exchange it helps to satisfy. Using this traceability from system-exchange to operational-exchange, one can further trace a system data exchange back to the information need it helps satisfy.

APPENDIX B

MHS ACTIVITY MODEL (OV-5)
BUSINESS PROCESSES AND DEFINITIONS

APPENDIX B

MHS ACTIVITY MODEL (OV-5)
BUSINESS PROCESSES AND DEFINITIONS

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
1	Access to Care	Processes designed to streamline a beneficiary's efforts to receive care and ensure the care received is appropriate in terms of type of care, intensity of care, and location of care.	CORE PROCESS
1.1	Manage Enrollment and Eligibility	Manage health care services through a beneficiary enrollment process which collects and maintains a core set of information. This information is used to determine what services an individual can receive.	COMPONENT
1.1.1	Establish/Maintain Benefits Policy	Initiate and manage the new beneficiary's orientation to the health care system. Update, implement, and disseminate changes to the benefit package.	ACTIVITY
1.1.2	Establish/Maintain/Access Enrollment and Eligibility	Ability to collect, maintain, and update a core set of enrollment/eligibility information (i.e., PCM, beneficiary personal preference information). Based upon this core set of information, eligibility for services is determined.	ACTIVITY
1.2	Perform Assessment and Plan for Care	Determine a need for health care services and direct the beneficiary to the appropriate level of care to receive the identified service in a timely manner.	COMPONENT
1.2.1	Perform Health Risk Screening	Administer standard risk-screening instrument to determine the beneficiary's health needs. Real-time analysis of beneficiary's responses and risk stratification based on the resulting score enables appropriate services to be identified during the initial interaction.	ACTIVITY

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
1.2.2	Assess Need for Service(s)	Assess current health status through use of standardized tools and algorithms to identify health care needs.	ACTIVITY
1.2.3	Identify Preventive/Screening Requirements and Services	Identify the appropriate preventive and screening service(s) a beneficiary may require based upon the health risk screen results/stratification.	ACTIVITY
1.2.4	Triage to Appropriate Level of Care	Direct beneficiaries to the appropriate level of care or health care service within an appropriate amount of time, using protocols and best practices. In peacetime, this includes sending a beneficiary to the same day clinic based on signs and symptoms. In wartime (in care under fire), this includes tactical field combat casualty evacuation care.	ACTIVITY
1.2.5	Refer for Service(s)	Guide the beneficiary to appropriate health care services/locations and communicate the referral(s) to internal and external providers (i.e., referral processing).	ACTIVITY
1.3	Schedule Services and Check-in	Obtain and verify a core set of information (eligibility, enrollment, demographics, PCM, case manager, special programs and personal preferences) and schedule a service or "set" of services for beneficiaries. Check-in occurs when the beneficiary arrives at the care delivery site or service site and all required information is collected and available to perform the service.	COMPONENT
1.3.1	Establish and Maintain Schedules	Create and manage schedules within and across the organization (internal and external). Involves managing the mechanics of schedules – for example, schedule maintenance (i.e., building and extending schedule templates), and finalizing schedule with providers and services.	ACTIVITY

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
1.3.2	Retrieve/Verify Information	Collect, record, and update a core set of information to ensure accurate beneficiary identification and health plan information.	ACTIVITY
1.3.3	Verify Eligibility	Determine the beneficiary's eligibility to receive services based upon their level of benefit in real-time.	ACTIVITY
1.3.4	Authorize and Schedule Services	Approval of the service requested is received by integration with the front-end of accounting (i.e., personal financial responsibility for the requested service(s)). Schedule and coordinate appointments and services of various types in multiple locations according to available locations and resources. Appropriate authorizations are in place to then allow for payment of the service.	ACTIVITY
1.3.5	Check-in	Manage sign-in of patient at the patient care delivery site and manage encounter-related information. During Check-in, all pre-requisite information is verified with the beneficiary and services then can be rendered.	ACTIVITY
1.4	Manage Patient Movement/Encounter	Arrange and track beneficiary's activities and movement across the continuum of care during peace and military operations. Ensure that the beneficiary's time is spent receiving service rather than waiting to receive it.	COMPONENT
1.4.1	Manage Beneficiary Encounter	Optimize the beneficiary experience during the encounter through streamlined, well coordinated scheduling and delivery of care. Patient/family hand-offs are coordinated with the receiving provider and facility.	ACTIVITY
1.4.2	Track and Coordinate Beneficiary/Family Movement	Identify the location and organize the movement of any beneficiary receiving services at the point of need in a timely manner.	ACTIVITY

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
1.4.3	Transfer/Evacuate Patients	Moving patients from one facility to another, from one service to another, from one environment to another, and from one level/echelon of care to another. During military evacuation (Casevac), the casualty has been picked-up by an aircraft, vehicle, or boat for transfer to a higher echelon of care.	ACTIVITY
1.5	Support Beneficiary Services	Orient the beneficiary to their benefits and the available services. In addition, receipt of services is tracked and beneficiary profiles are updated to reflect status.	COMPONENT
1.5.1	Manage Health Risk Profiles	Develop, maintain, and update beneficiary's health profile.	ACTIVITY
1.5.2	Manage Healthcare Service Completion	Track, document, and follow-up with beneficiaries regarding the achievement of health care services and education.	ACTIVITY
1.5.3	Market Services to Beneficiaries	Market and communicate new and existing information to beneficiaries and eligible population.	ACTIVITY
1.5.4	Orient/Update Beneficiaries	Develop and distribute data and information to assist in the health care education of beneficiaries.	ACTIVITY
1.5.5	Respond to and Monitor Beneficiary Inquiries	Identify and evaluate beneficiary inquiries and provide appropriate action and feedback.	ACTIVITY
1.6	Assess Effectiveness of Access to Care	Identify key performance measures and performance standards, measuring the current operating performance along the indicators of quality, cost and cycle-time, and improving access to care processes and practices.	COMPONENT
1.6.1	Identify Desired Performance Measures and Standards	Comprised of selecting process and practice areas to measure. This includes identification of industry benchmarks (internal and external), customer expectations, competitor standards, and targets for performance.	ACTIVITY

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
1.6.2	Develop and Deploy Improved Practices	Develop and implement improved processes and practices.	ACTIVITY
1.6.3	Monitor Process and Practice Performance	Comprised of establishing a feedback loop to continuously improve performance. This includes on-going measurement, monitoring, and revision.	ACTIVITY
1.7	Support Community Outreach	Provide education services and medical advice to beneficiaries.	COMPONENT
1.7.1	Provide Health Services and Education	Provide wellness and disease specific services and education to a defined, targeted population.	ACTIVITY
1.7.2	Track and Manage Health Services and Education	Track and manage beneficiary inquiries and provide education tools based on inquiries.	ACTIVITY
2	Provision of Health Services	Processes that fundamentally shift the care giver's focus from illness care to illness prevention and wellness promotion in order to achieve the optimal health status for individuals and populations.	CORE PROCESS
2.1	Assess Beneficiary Health Status	Assess Beneficiary Health Status involves determining the beneficiary's health, functional and risk status using an issues-based approach. Assessment of health status is both on-going and episodic. The health risk assessment tool is a standardized set of health questions completed by each beneficiary on entry, and risk level is determined by population health studies.	COMPONENT
2.1.1	Evaluate Beneficiary Health Status	Completion of the health risk assessment tool by the beneficiary and assignment to the appropriate risk level; evaluation by PCM/provider at point of contact.	ACTIVITY
2.1.2	Monitor Health Status/Progress	A proactive and ongoing process to modify beneficiary care, as indicated, based on beneficiary progress.	ACTIVITY

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
2.1.3	Provide Outreach/Follow-up with Beneficiaries	Structured and planned communication between members of the health care team and the beneficiary with the goal to optimize beneficiary outcomes.	ACTIVITY
2.2	Plan Health Services	Create an individualized, issue-focused plan of services that utilizes the appropriate level of care and resources to ensure quality and cost-effective outcomes. All plans of services will incorporate care, case, wellness and disease management strategies.	COMPONENT
2.2.1	Assess Appropriate Guidelines/Protocols and Determine Most Appropriate Intervention(s)	The process of providing current and accurate decision-support tools to providers to assist their choosing the most appropriate level and location of service to achieve the best beneficiary outcome.	ACTIVITY
2.2.2	Collaborate/Partner with	Establishing a relationship between the provider and beneficiary that will support successful implementation of the plan of health services.	ACTIVITY
2.2.3	Plan Medical Mission	Identify capabilities, training needs, resources, and evacuation plans necessary to maintain a successful mission.	ACTIVITY
2.3	Deliver Health Services	A process that provides the beneficiary and family with information and health services in a timely, productive, and effective manner that achieves desired outcomes and maximizes force readiness.	COMPONENT
2.3.1	Conduct Beneficiary/Family Education	Providing the beneficiary and family with educational materials about their wellness and plan of health services.	ACTIVITY
2.3.2	Coach Beneficiary in Self-Management and Compliance	Providing beneficiary with clear expectations for their participation in the care plan and implications of non-compliance.	ACTIVITY
2.3.3	Initiate Care Plan and Perform Intervention or Service	Treatment or service is performed by health care provider on/to a beneficiary, either virtually or face-to-face.	ACTIVITY

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
2.4	Manage Information/Manage Documentation	A clinical documentation process that occurs as a byproduct of the delivery of health services. Information in the health record is standardized and easily accessed from multiple sites to meet the needs of a mobile population. Information flows within the MHS and to and from civilian entities.	COMPONENT
2.4.1	Document Care Plans and Delivery at Time of Service	Record the assessment, plan, intervention, and outcomes whenever and wherever care is delivered.	ACTIVITY
2.4.2	Ensure Documentation Meets Standards	Clinical documentation is complete utilizing common lexicon and templates.	ACTIVITY
2.4.3	Manage Information Flow to/from Civilian Providers	Information required for beneficiary care in the civilian sector is supplied by the MHS and clinical and cost information returns to the MHS from the civilian sector.	ACTIVITY
2.4.4	Provide Care Team with Access to Beneficiary Health Information	Results and output from ancillary services and all members of the care team are accessible 24/7.	ACTIVITY
2.5	Coordinate and Integrate Health Services	Coordinate and Integrate Health Services involves optimizing utilization of services to achieve the desired beneficiary outcomes and promote Maximum Force Readiness.	COMPONENT
2.5.1	Manage Transition of Provision of Health Services Throughout the MHS Continuum	Support beneficiary movement to different sites and levels of care throughout the MHS continuum.	ACTIVITY
2.5.2	Manage Services/Programs for Individuals and Populations	Utilize evidence-based decision tools and management systems to optimize outcomes for individual beneficiaries and targeted populations.	ACTIVITY

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
2.6	Ensure Quality of Health	An ongoing process of determining metrics, analyzing data, and providing feedback to individual providers in a manner that supports improvement of the quality of services provided to beneficiaries. Information and data collected facilitates meeting regulatory requirements for credentialing and accreditation.	COMPONENT
2.6.1	Manage/Report Incidents	The process of identifying and tracking variations in provision of health services.	ACTIVITY
2.6.2	Monitor Performance Against Standards	With provider input, creating metrics, collecting and analyzing data, and providing feedback to providers at the individual/panel/facility or population level.	ACTIVITY
2.6.3	Meet Regulatory Requirements (Credentialing and Accreditation)	The process of documenting provider education to support credentialing, and collecting data on improvement efforts.	ACTIVITY
3	Population Health Management	Processes which optimize the health, health planning and health management of all beneficiaries (retirees, dependents and active duty members).	CORE PROCESS
3.1	Define/Assess Population	The process of defining and assessing a given population requires that the population is identified through some means e.g. enrollment. Health/risk screening is designed to elicit information from and about the identified population regarding environmental threats, certain disease states, conditions, activities, and behaviors/patterns that can influence health status. A health risk profile and/or cost risk analysis is completed to target a given population.	COMPONENT
3.1.1	Assess Population Status and Stratify Population	Analyze assessment data to determine the health care needs of the population and define logical groupings.	ACTIVITY

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
3.1.2	Develop and Manage Health Risk Screening Processes	Develop screening process that includes review of the population's initial and ongoing health history, immunizations, heredity/environmental risks, lifestyle, use of the healthcare system, and self-management capabilities.	ACTIVITY
3.1.3	Identify Baseline Population	Each beneficiary must be enrolled in the system in order to establish the baseline population with whom the DoD will interact.	ACTIVITY
3.1.4	Identify Force Health Threats	Identify population health management issues that might interrupt normal military operations.	ACTIVITY
3.1.5	Identify and Prioritize Targeted Populations	Utilizing appropriate tools identify the characteristics, attributes, genetic dispositions, and needs of groups and sub-groups of the targeted population for new care management practices.	ACTIVITY
3.1.6	Identify Public Health Threats	Identify medical and environmental conditions that may impact the population's well being.	ACTIVITY
3.1.7	Manage the Population Database/Maintain Registry of Targeted Population	PHM team will utilize a centralized source of population data that is fed by Provision of Care, Access to Care, and Business activities. They will be responsible for assessing the quality of data for population studies, and making recommendations for specific data element inclusion or exclusion. PHM teams will also identify a subset within the centralized database of the targeted populations for new programs/research/interventions.	ACTIVITY
3.2	Develop Population Management Practices	A continuous process of developing tools, models, programs, and processes to support population health management, based on analysis of population health data and research.	COMPONENT

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
3.2.1	Benchmark Performance to Identify and Understand Gaps	Benchmark against other programs/initiatives to establish normative range, then self benchmark programs/initiatives for improvement.	ACTIVITY
3.2.2	Develop Care Models and Management Programs for Targeted Populations/Conditions	Working in conjunction with specific clinical staff, develop new care models that support research and targeted populations. This includes all the documentation processes, delivery processes, and evaluation tools necessary to implement new programs.	ACTIVITY
3.2.3	Develop Evidenced-based Protocols and Condition	A framework for a standardized approach to the multidisciplinary care of an individual with a particular condition. The framework is based on both internal and external research and best practices.	ACTIVITY
3.2.4	Develop Referral Process for PHM Programs	Working in conjunction with specific clinicians, help establish a standard referral process that incorporates population health concepts and research for referrals to population health programs.	ACTIVITY
3.2.5	Develop Standards for Process and Clinical Outcomes/Metrics	Create standards for changes in process and clinical outcome using evidence and benchmarked information. Develop measurable indicators that describe the population's health status, response to clinical interventions, and assess the efficiency and effectiveness of the health delivery system.	ACTIVITY
3.2.6	Develop Tools and Models for Care Management Initiatives	The implementation of evidence-based guidelines, care models and delivery methods, requires well-developed support tools and a systematic approach to education and change management.	ACTIVITY

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
3.2.7	Identify Initiatives for High Prioritized Targeted Populations	After review of the research, benchmarked information, and population data, specific populations are identified for new programs and initiatives related to clinical, organizational, behavioral and business change.	ACTIVITY
3.2.8	Recommend Formal Incentives for Compliance to Standards	Recommend programs/rewards that recognize support for desired health promotion outcomes.	ACTIVITY
3.2.9	Research Internal/External Models and Best Practices	Conduct literature searches and research the industry identifying successful and pertinent care models currently being utilized as potential baseline for use.	ACTIVITY
3.3	Implement Tools/Manage Processes	The process of taking proactive action or engaging in proactive activities, methods, or practices that maximize health status and/or minimize health risk for selected populations and/or population health programs.	COMPONENT
3.3.1	Educate Patients Concerning New Models/Practices	Using well designed methods and tools instruct patients on how they can adapt and can contribute to new practices that will increase their level of wellness and avoid illness.	ACTIVITY
3.3.2	Ensure Deployment Readiness	Ensure that there is the capability for surveillance of troop readiness (e.g. immunizations) and environmental conditions which will enable rapid deployment and support of troops in the theatre.	ACTIVITY
3.3.3	Gain Clinician Consensus/Buy-in of New Practices	Educate and support clinicians through the change management process as new initiatives are implemented.	ACTIVITY
3.3.4	Implement Patient Self-Management Programs	Create and deploy mechanisms to develop accountability for ones own health/condition management plan.	ACTIVITY

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
3.3.5	Manage Occupational/Environmental Threats	Ensure that there are systems/processes and data available to effectively and efficiently survey various environments to identify health risks.	ACTIVITY
3.3.6	Support Community Outreach Programs	Assist health care providers with support and education to improve upon and enhance appropriate community programs.	ACTIVITY
3.4	Evaluate	A formative and comparative evaluation process for the development and implementation of an evidence-based population health management system.	COMPONENT
3.4.1	Develop and Implement Measurement Data Collection, Analysis, and Reporting Tools	Tools for the use of population health management team are created and standardized. Processes are created that allow for accurate collection, analysis, evaluation, and dissemination of population information.	ACTIVITY
3.4.2	Monitor and Ensure Quality and Appropriateness of Services	Providing an information base for proactive analysis and improvement for programs and services.	ACTIVITY
3.4.3	Monitor and Recommend Adjustments to Internal Programs	Continuous monitoring of internal programs as to quality and effectiveness and providing recommendations for change related to new evidence.	ACTIVITY
3.4.4	Monitor and Report Compliance to Standards and Outcomes	Continuous review of programs, methods and compliance to standards related to researched and benchmark data. Reports are created and disseminated to appropriate individuals e.g., Line Command.	ACTIVITY
3.4.5	Monitor Research on Clinical and Operational Best Practices	Continuous review of the literature and examples of practices that have proven to improve quality of care and reduce costs.	ACTIVITY

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
4	Manage the Business	Processes which reflect the administrative and physical infrastructure support that include financial services, operational support, human resources, managed care contracting, billing, materials management, and other administrative services.	CORE PROCESS
4.1	Deliver Worldwide Logistics	Managing supplies, equipment, services, technology, and facilities from identification of requirements, through acquisition, use and ultimate disposition.	COMPONENT
4.1.1	Manage Equipment, Contract Services, and Technology	Acquiring, maintaining, and accounting for equipment and contract services, to include assessment and employment of technology.	ACTIVITY
4.1.2	Manage Facilities	Managing structures, building utilities and systems, real property to include support for repairs, space assignment, safety, and security.	ACTIVITY
4.1.3	Manage Material	Acquiring, tracking, managing, distributing, storing and if required, disposing of supplies. Includes electronic interfaces with suppliers and Defense financial systems.	ACTIVITY
4.1.4	Wartime Assemblage Management	Peacetime acquisition, storage, and maintenance of wartime materials, supplies, and equipment to meet contingency mission requirements worldwide.	ACTIVITY
4.2	Manage Finances	The set of processes that control financial assets, obligations, and financial reporting requirements, which includes general ledger, accounts receivable, and accounts payable management.	COMPONENT
4.2.1	Assure Accounting Controls	Implementing and monitoring comprehensive accounting controls for all financial operations.	ACTIVITY
4.2.2	Conduct Financial Planning	Programming, planning, and budgeting for the MHS.	ACTIVITY

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
4.2.3	Manage Cash	Managing cash collections and billing.	ACTIVITY
4.2.4	Manage Accounts Payable	Accounting for commitments, obligations, and disbursements to vendors, suppliers, and providers.	ACTIVITY
4.2.5	Manage Accounts Receivable	Accounting for all monies owed from patient accounts, reimbursements, and any other providers.	ACTIVITY
4.2.6	Perform General Administrative Management	Managing general day-to-day business operations, which includes budget formation, maintaining decision support systems, documenting business models and process flows, and developing and implementing marketing plans.	ACTIVITY
4.3	Manage Human Resources	Recruiting, hiring, and training the MHS personnel. The process also includes managing time keeping and payroll activities, maintaining employee relations, and complying with all state and federal employment regulations.	COMPONENT
4.3.1	Manage Staffing Levels	Recruiting, administering automated time and attendance information systems, and maintaining cost effective staff levels to support the MHS.	ACTIVITY
4.3.2	Skills Acquisition and Maintenance	Designing, implementing, and managing personnel training programs to meet the current and future needs of the MHS.	ACTIVITY
4.3.3	Establish and Maintain Certification and Credentialing Information	Gathering and maintaining certification and/or licensing information for DoD personnel.	ACTIVITY
4.3.4	Manage Employee Compensation	The process of managing employee compensation in compliance with State/Federal employment and payroll regulations.	ACTIVITY
4.3.5	Establish Incentive Programs	The process of designing, implementing, and managing employee incentive and promotional programs.	ACTIVITY

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
4.3.6	Conduct Performance Reviews	The process of organizing, planning, and conducting personnel performance reviews to provide basis for employee career development.	ACTIVITY
4.4	Patient Financial Management	Administering patient billing, claims processing, and reconciliation functions.	COMPONENT
4.4.1	Perform Patient Billing	Administering and managing patient billing for the MHS including month-end reconciliations, reporting, and payment collection.	ACTIVITY
4.5	Perform Medical Management	Confirming resources, utilization, and cost management programs to support the objectives of managed care contracting and/or associated risk management. Programs support compliance with health plan coverage, reimbursement, and benefit provisions.	COMPONENT
4.5.1	Manage Utilization Levels	Performing patient pre-authorizations, provider referral authorizations, and patient pre-certification of overused areas. Also includes catastrophic/high risk case management and coordination of appeals.	ACTIVITY
4.5.2	Monitor Medical Performance	Performing patient prospective and concurrent reviews, conducting retrospective case audits, measuring guideline compliance, monitoring service utilization, analyzing provider profiles, and identifying new cost/utilization containment programs.	ACTIVITY
4.5.3	Maintain Medical Management Processes	Developing and updating medical policy and procedures, monitoring quality and outcomes of care, monitoring provider service issues, and obtaining and maintaining accreditation.	ACTIVITY
4.6	Review/Improve Business Management	Assuring that all functions and services are performed in a cost-effective manner and within budgets and scope.	COMPONENT

Business Process Number	Business Process Name	Business Process Definition	Business Hierarchy
4.6.1	Analyze Execution Performance	Analyzing workload and labor budget variances and making recommendations for improvement.	ACTIVITY
4.6.2	Perform Cost Accounting	Collecting and interpreting costs per unit of service to provide management decision support and other key financial indicators.	ACTIVITY
4.6.3	Planning and Forecasting	Planning business re-engineering and process re-design initiatives.	ACTIVITY
4.6.4	Conduct Business Research	Collecting and interpreting data to achieve tactical and strategic goals of the MHS, including current trends in healthcare, staff education opportunities, and business opportunities and risks.	ACTIVITY
4.6.5	Improve Customer Service	Enhancing customer service efforts by implementing efficient processes to eliminate redundant tasks and minimize rework for the patients and providers.	ACTIVITY
4.6.6	Ensure Regulatory and Licensing Compliance	Ensuring through the MHS legal services that all federal, state, and local government regulations are complied with for all activities throughout the MHS.	ACTIVITY
4.7	Support Managed Care Contract	The process by which the provider, payer, and employer evaluates operating results and measures utilization of care under a specific contract and identifies steps required to ensure compliance.	COMPONENT
4.7.1	Manage Capitation	Determining capitation services and rates, conducting monthly financial calculations and reconciliations, distributing payments, performing premium billing activities, and performing period-end risk pool settlements.	ACTIVITY
4.7.2	Manage TRICARE Contracts	Managing contract terms and conditions, tracking profitability, and modeling costs of contracts.	ACTIVITY

APPENDIX C

VHA BUSINESS ARCHITECTURE
BUSINESS PROCESSES AND DESCRIPTIONS

APPENDIX C

VHA BUSINESS ARCHITECTURE
BUSINESS PROCESSES AND DESCRIPTIONS

VHA's business processes are a high-level grouping of related processes within their organization. VHA does not utilize numbers to identify their processes or sub-processes, therefore a unique number was assigned to each process and sub-process to facilitate reading and tracking during the comparison process.

The following table provides a preliminary decomposition of VHA business processes into core and supporting/enabling functions. Core functions add value, and directly impact VHA's mission, while supporting/enabling functions support the core functions. These functions are then further decomposed into sub-processes, which are a group of activities that takes an input, transforms it, and provides an output.

VHA Business Processes—Core Functions and sub-processes:

1.0 Member Management	2.0 Access Management	3.0 Patient Care Services	4.0 Financial Management	5.0 Veteran Service	6.0 Clinician and Student Education	7.0 Research and Develop- ment	Emergeny Manage- ment (TBD)
1.1 Gather Patient Information	2.1 Process Request for Referral or Service Authorization	3.1 Provide Direct Patient Care	4.1 Process Bills and Collections	5.1 Respond to Veteran Inquiries	6.1 Plan Health Education Programs	7.1 Approve and/or Fund Research	
1.2 Determine Eligibility	2.2 Schedule Appointment	3.2 Enter and Track Orders	4.2 Process and Track Transactions	5.2 Provide Information and Educate Veterans	6.2 Maintain Academic Affiliations	7.2 Administer Research	
1.3 Process Enrollment	2.3 Pre-Register/ Register/Admit Patient	3.3 Access Health Summary, Integrated Longitudinal Patient Record	4.3 Process Claims	5.3 Conduct Satisfaction Surveys	6.3 Educate Clinicians and Students	7.3 Conduct Disease Pathology, Diagnosis, and Treatment Research	
1.4 Assign Primary Care Physician	2.4 Discharge (check-out)/ Transfer Patient	3.4 Provide Ancillary Services	4.4 Establish Rate Structures			7.4 Conduct Clinical Trials	
1.5 Assign Preferred Facility		3.5 Provide Allied Health Services				7.5 Assess Health Care Services	
1.6 Process Appeal or Notice of Disagreement		3.6 Provide Clinical Practice Guidelines				7.6 Conduct Rehabilitation Research	
1.7 Determine Enrollment Group Threshold						7.7 Collaborate and Disseminate Research	

VHA Business Processes—Supporting/Enabling Functions and Sub-processes:

8.0 Human Resources	9.0 Information Management	10.0 Organizational Management	11.0 Provider Management	12.0 Operations, Logistics, and Supply Chain Management	13.0 Strategic Planning and Budgeting
8.1 Recruit and Hire Staff	9.1 Assess Information Needs	10.1 Manage Workload	11.1 Forecast Health Service Needs	12.1 Manage Facilities (tracking and program plans)	13.1 Define/Refine Organization Goals and Implement as Operational Strategies
8.2 Conduct Training and Education	9.2 Plan and integrate processes for information priorities and framework (compare current to desired environment implement data capture, storage, and access processes)	10.2 Assure Quality (includes auditing, peer review, event monitoring, and surveys)	11.2 Develop and Maintain Provider Networks	12.2 Manage Property	13.2 Determine Policy
8.3 Manage Employee Benefits	9.3 Fulfill Info Requests	10.3 Manage/Analyze Performance (e.g., utilization, risk, benchmarking, best practices, patient satisfaction, patient safety, quality of care, costs such as prescription)	11.3 Maintain Credentials and Privileges	12.3 Manage Construction Projects	13.3 Obtain and Allocate Appropriated Funds

VHA BUSINESS PROCESSES AND SUB-PROCESSES

8.0 Human Resources	9.0 Information Management	10.0 Organizational Management	11.0 Provider Management	12.0 Operations, Logistics, and Supply Chain Management	13.0 Strategic Planning and Budgeting
8.4 Maintain Employee Relations		10.4 Manage Privacy, Accuracy and Confidentiality (includes disclosure and consent)	11.4 Maintain Provider Profiles (unique Ids, demographic info., payment arrangements)	12.4 Purchase Materials and Supplies	13.4 Manage Finances (enable optimal resource allocation)
8.5 Record Time and Attendance		10.5 Manage Patient Safety (Incident Reporting)	11.5 Manage Provider Contracts	12.5 Store and Distribute Materials (includes inventories of supplies)	13.5 Formulate and Execute Budget
8.6 Produce Payroll		10.6 Ensure Compliance with Environmental and Public Health Standards	11.6 Maintain Provider Relations (education, orientation, response to inquiries, communicate policy)	12.6 Manage Supplier Contracts	
8.7 Provide Library Services		10.7 Manage Caseloads			

The subsequent sections describe each core and enabling business function, provides a description of the sub-processes within each core function, and describes their initiating events and expected outcomes. These descriptions are preliminary and VHA will mature them into formal information assets over time. VHA anticipates enhancing these descriptions in mid-2002.

Core Functions

1.0 – MEMBER MANAGEMENT

Member management includes the processes and activities surrounding the establishment and maintenance of a veteran in the veteran's health care delivery model. Member Management encompasses enrollment, eligibility, benefits, selection of the preferred facility, selection of the primary care provider, and veteran education regarding all aspects of health care.

1.1 – Gather Patient Information

Initiating Event: Veteran initiates enrollment.
Description: The process in which specific attributes of applicants (e.g., service-connected disability, means test results) are gathered to enroll an applicant/patient. This process also includes gathering of a specified set of demographic data used to identify the individual and to facilitate communication with and education of that individual.
Expected Outcome: A complete set of applicant attributes.

1.2 – Determine Eligibility

Initiating Event: Required enrollment information is collected and/or veteran needs medical care.
Description: A process that determines an individual's eligibility for care in the VHA healthcare system. It is this process that determines the extent of financial liability (e.g., coordination of benefits) of the veteran, the VHA, and/or a contracted provider or sharing arrangements (such as, the sharing of patient care between facilities). A veteran's eligibility must be verified prior to being enrolled into the VHA healthcare system.
Expected Outcome: Applicant's priority level, level of benefits and financial liability is determined.

1.3 – Process Enrollment

Initiating Event: Veteran or representative presents for enrollment and/or medical care, veteran declines enrollment, or pre-defined event is triggered.
Description: This is the process by which a veteran is enrolled in or disenrolled from the VHA health care system. During enrollment, specific attributes of applicants (e.g., service-connected disability, or means test results) are subjected to a predefined set of criteria to determine whether the applicant qualifies for enrollment. This process also includes the gathering of a specified set of demographic data used to identify the individual and to facilitate communication with, and education of, that individual. An individual is disenrolled when he or she is determined to be ineligible, declines enrollment, or when a pre-defined event is triggered based on changes in eligibility, including a veteran's priority being ranked below threshold, or in certain cases, the veteran's means test expiring.
Expected Outcome: A veteran is assigned or re-assigned an enrollment status within the VHA healthcare system.

1.4 – Assign Primary Care Physician

Initiating Event: An assignment request is received.
Description: The veteran selects, or is assigned a primary care provider.
Expected Outcome: The assignment of a veteran to a primary care physician based on veteran preference or VHA assignment.

1.5 – Assign Preferred Facility

Initiating Event: An application for Enrollment/Veteran Request's Change is received.
Description: Assign or receive a veteran's preferred facility for services.
Expected Outcome: The assignment of a veteran to a facility based on veteran preference or VHA assignment (e.g., zip code).

1.6 – Process Appeal or Notice of Disagreement

Initiating Event: Received Appeal
Description: The system of steps used to respond to a request for an appeal, notice of disagreement related to a denial (e.g., claim, referral or service authorization based on a medical necessity), or eligibility determination request.
Expected Outcome: The request for an appeal will result in either upholding or over-turning the original decision made on the request.

1.7 – Determine Enrollment Group Threshold

Initiating Event: A new appropriation is received, a variation in the VHA's budget occurs, or demand increases.
Description: The enrollment group threshold is initially determined, evaluated, and modified, if needed.
Expected Outcome: The enrollment group threshold is determined or modified.

2.0 – ACCESS MANAGEMENT

Access Management is the processes by which veterans and providers are directed to, and provided, the most appropriate service and level of care consistent with the needs and choices of the veteran, and medical necessity as determined by the provider.

2.1 – Process Request for Referral or Service Authorization

Initiating Event: Care Access Request is received.
Description: A request for referral or service authorization is fulfilled, based upon a determination of the veteran's needs and location. This includes the steps used to determine if the request is complete and to respond to an inquiry regarding the status of the request.
Expected Outcome: The Care Access Request is approved or denied.

2.2 – Schedule Appointment

Initiating Event: Request to schedule, reschedule, or cancel a patient service.
Description: This process includes the steps used to schedule, reschedule, or cancel a patient health care service. This includes notifying the patient, and the provider, that an appointment has been scheduled.
Expected Outcome: The appointment is scheduled, rescheduled, or canceled.

2.3 – Pre-Register/Register/Admit Patient

Initiating Event: Request to pre-register patient, application for registration or admission.
Description: This process includes all steps used to register a patient for health care services prior to admittance or check-in at the health care facility or at the time of care. It often serves as a focal point for the collection of patient-related information such as demographics, employment history, insurance, and medical history data.
Expected Outcome: The patient is either registered for the service or a denial is sent.

2.4 – Discharge (check-out)/Transfer Patient

Initiating Event: Request for patient discharge or transfer.
Description: This process tracks patient movements during inpatient stays (e.g., bed control) and to discharge patients.
Expected Outcome: The patient is either transferred or discharged.

3.0 – PATIENT CARE SERVICES

Patient Care Services encompasses the processes by which patients are provided healthcare services (e.g., primary and ambulatory, mental health, extended care, remote care, and nursing home) in a seamless manner.

3.1 – Provide Direct Patient Care

Initiating Event: Requested Service/Procedure, Scheduled Visit
Description: The patient is provided direct patient care including patient evaluation and/or treatments, immunizations, and patient education. This includes clinicians recording notes to document the course of care.
Expected Outcome: The patient has received a service and/or procedure, with recorded and retrievable progress notes.

3.2 – Enter and Track Orders

Initiating Event: Required medication, Procedure, Consults
Description: Clinicians can order and track consults and procedures including lab tests, medications, diets, and radiology. This includes the capability to access drug formulary and to identify potential interactions including: drug-drug, drug-dosage, drug-overlap, drug-lab, and drug-allergy.
Expected Outcome: Service(s) and/or procedure(s) are ordered.

3.3 – Access Health Summary, Integrated Longitudinal Patient Record

Initiating Event: Request to view integrated clinical data
Description: A wide range of integrated health information related to a particular patient including demographic data, allergies, current active medical problems, laboratory results, and past medical history is securely accessed by authorized users. This process includes the capability to remind providers and patients about health maintenance schedules.
Expected Outcome: Integrated clinical data regarding a specific patient is accessible.

3.4 – Provide Ancillary Services

Initiating Event: Requested Ancillary Service
Description: The processes include lab work, pharmacy, and radiology services.
Expected Outcome: Ancillary service is completed.

3.5 – Provide Allied Health Services

Initiating Event: Requested Allied Health Service
Description: The process by which allied health services are provided including dietetics, nutrition, and wellness counseling.
Expected Outcome: Allied health service is completed.

3.6 – Provide Clinical Practice Guidelines

Initiating Event: Consensus, based on an explicit level of evidence, regarding how patients with defined conditions should be treated for individual or population benefit.
Description: Clinical practice guidelines are provided to clinicians to deliver care to veterans in the most effective manner.
Expected Outcome: Clinical practice guidelines are provided to clinicians.

4.0 – Financial Management

Financial management includes the processes related to the transfer of funds between entities involved in the delivery of care to veterans and the VHA budget as it pertains establishing a rate structure, collecting funds, processing provider billing, and processing claims.

4.1 – Process Bills and Collections

Initiating Event: Timely entry of service codes for medical and non-medical services provided, received payments, payment due date notices, overdue notices, and adjustments to payers' accounts.
Description: Bills are generated and payment is received for services provided at VA medical facilities.
Expected Outcome: Bills are generated and sent to the responsible party for payment. Payments received are distributed to the network in which the service was provided. Bills not paid are followed up for resolution. Payments that are unable to be processed are received, and are processed through denial/exceptions processing.

4.2 – Process and Track Transactions

Initiating Event: Timely entry of service codes for medical and non-medical services provided or a valid claim is recorded.
Description: Accounting transactions related to patient care services (e.g., payments received from first and third parties, payments made by VA) are recorded or transferred to denial.
Expected Outcome: Accounting transactions are recorded within the appropriate fund or transfer to denial processing.

4.3 – Process Claims

Initiating Event: Received claim
Description: Claims are processed for payment or denial.
Expected Outcome: Claims are processed for payment or denial or suspended for additional information. The veteran may appeal denied claims.

4.4 – Establish Rate Structures

Initiating Event: New fiscal year, government legislation, contracts
Description: Rates are determined for services and procedures performed within health care facilities.
Expected Outcome: Rates are set.

5.0 – VETERAN SERVICE

VHA responds to inquiries regarding virtually any aspect of the health care model, as well as providing veterans' authorizations and referrals, and the collection of relevant veteran data. Veteran Service will ensure proactive management (cost and quality) of veterans' health care (e.g., sending reminders for immunizations, mammograms, pap smears, diabetes, and exams). Veteran Service encompasses all veteran touch points.

5.1 – Respond to Veteran Inquiries

Initiating Event: Veteran inquiry (e.g., requests, compliments, complaints, notice of disagreements, and appeals).
Description: A veteran contacts Veteran Service with an inquiry. The inquiry is evaluated, serviced and/or responded to, and then ended.
Expected Outcome: Veteran inquiry is addressed, feedback loop to patient/veteran occurs.

5.2 – Provide Information and Educate Veteran

Initiating Event: Internal decision to educate the veteran, internal event, veteran inquiry.
Description: The process of providing the veteran with information including definitions and explanations of benefits, directions to other VHA resources, Wellness, Preventative Care, Patient Reminders/Notifications, Remote Care Directions, and/or directions to other components of the veteran health-care model or external agencies or departments.
Expected Outcome: Provision of information to and education of the veteran.

5.3 – Conduct Satisfaction Surveys

Initiating Event: Veteran-stated survey need
Description: Veteran input/feedback is collected in regards to quality, timeliness, safety, and effectiveness of care, and administrative support. The feedback is continually used to improve access to care, quality of care, and administrative processes.
Expected Outcome: Completed surveys and results published.

6.0 – CLINICIAN AND STUDENT EDUCATION

This function includes the establishment and maintenance of academic affiliations and training of the health workforce to ensure that the education programs contribute to the mission of serving the needs of America's veterans.

6.1 – Plan Health Education Programs

Initiating Event: Pre-defined time period, new policy.
Description: The process by which health education programs are planned and established to ensure that the programs contribute to the mission of serving the needs of America's veterans.
Expected Outcome: Planned education program.

6.2 – Maintain Academic Affiliations

Initiating Event: Education policy or plan.
Description: Affiliations with academic organizations including colleges, universities, professional organizations, and accrediting bodies for health education programs are established and maintained.
Expected Outcome: Association with academic organizations.

6.3 – Educate Clinicians and Students

Initiating Event: Education requested.
Description: Health care professionals and students are educated.
Expected Outcome: Trained clinician or student.

7.0 – RESEARCH AND DEVELOPMENT

Medical research is administered and conducted.

7.1 – Approve and/or Fund Research

Initiating Event: Proposed research, request for grants.
Description: Proposed research is reviewed and approved and/or funded if necessary.
Expected Outcome: Approved and/or funded research, or denied grants/funds.

7.2 – Administer Research

Initiating Event: Approved and/or funded research.
Description: Approved and/or funded research is directed and managed.
Expected Outcome: Administered research.

7.3 – Conduct Disease Pathology, Diagnosis, and Treatment Research

Initiating Event: Approved and/or funded research.
Description: Fundamental biological processes are researched to form an understanding of disease pathology, diagnosis, and treatment.
Expected Outcome: Knowledge of fundamental biological processes.

7.4 – Conduct Clinical Trials

Event: Approved and/or funded research.
Description: Knowledge is gained from determining the effectiveness of novel or unproved therapies using multi-center clinical intervention trials.
Expected Outcome: Knowledge of the effectiveness of novel or unproved therapies that helps to establish new standards of care and improve veterans' health.

7.5 – Assess Health Care Services

Initiating Event: Pre-defined timeline, identified trends in service.
Description: The quality, effectiveness, efficiency, and accessibility of health care services for veterans are researched and ultimately improved. This process includes assessment of patient outcomes and health care cost.
Expected Outcome: Assessment of health care services for veterans.

7.6 – Conduct Rehabilitation Research

Initiating Event: Approved and/or funded research.
Description: The minimization of disability and restoration of function in veterans disabled by trauma or disease is researched.
Expected Outcome: Knowledge regarding the minimization of disability and restoration of functions in disabled veterans.

7.7 – Collaborate and Disseminate Research

Initiating Event: Research findings, inquiries, test inputs/results.
Description: Process by which drug, clinical, disease, and rehabilitation research information is collaborated/exchanged with partnering institutions (government, non-profit, and commercial) and other stakeholders.
Expected Outcome: Research results are disseminated and available to all authorized individuals, as well as research breakthroughs, lessons learned, and best practices.

Supporting/Enabling Functions

8.0 – HUMAN RESOURCES

These processes assist VHA organizations in the application of human resource policies, procedures, programs, and standards. They also provide recruiting, hiring, training, developing, compensating, counseling, and if necessary, dismissal services to staff.

9.0 – INFORMATION MANAGEMENT

The processes that assess information needs, plan and integrate for information priorities and framework, and fulfill information requests based on business need and in compliance with applicable security and privacy regulations (e.g., HIPAA, Privacy Act, VHA Directive 6210).

10.0 – ORGANIZATIONAL MANAGEMENT

This process provides administration, oversight, evaluation, and improvement of the operations of an organization.

11.0 – PROVIDER MANAGEMENT

This process establishes a network of VA and Non-VA providers and maintains a core set of information including: forecasting, identification, contracting, credentialing, and privileging.

12.0 – OPERATIONS, LOGISTICS, AND SUPPLY CHAIN MANAGEMENT

This includes the integrated processes and activities involved in the management, procurement, and transportation of facilities, properties, and supplies.

13.0 – STRATEGIC PLANNING AND BUDGETING

The processes that establish and prioritize long-term enterprise goals and objectives, set policy, and formulate and execute the budget.

APPENDIX D

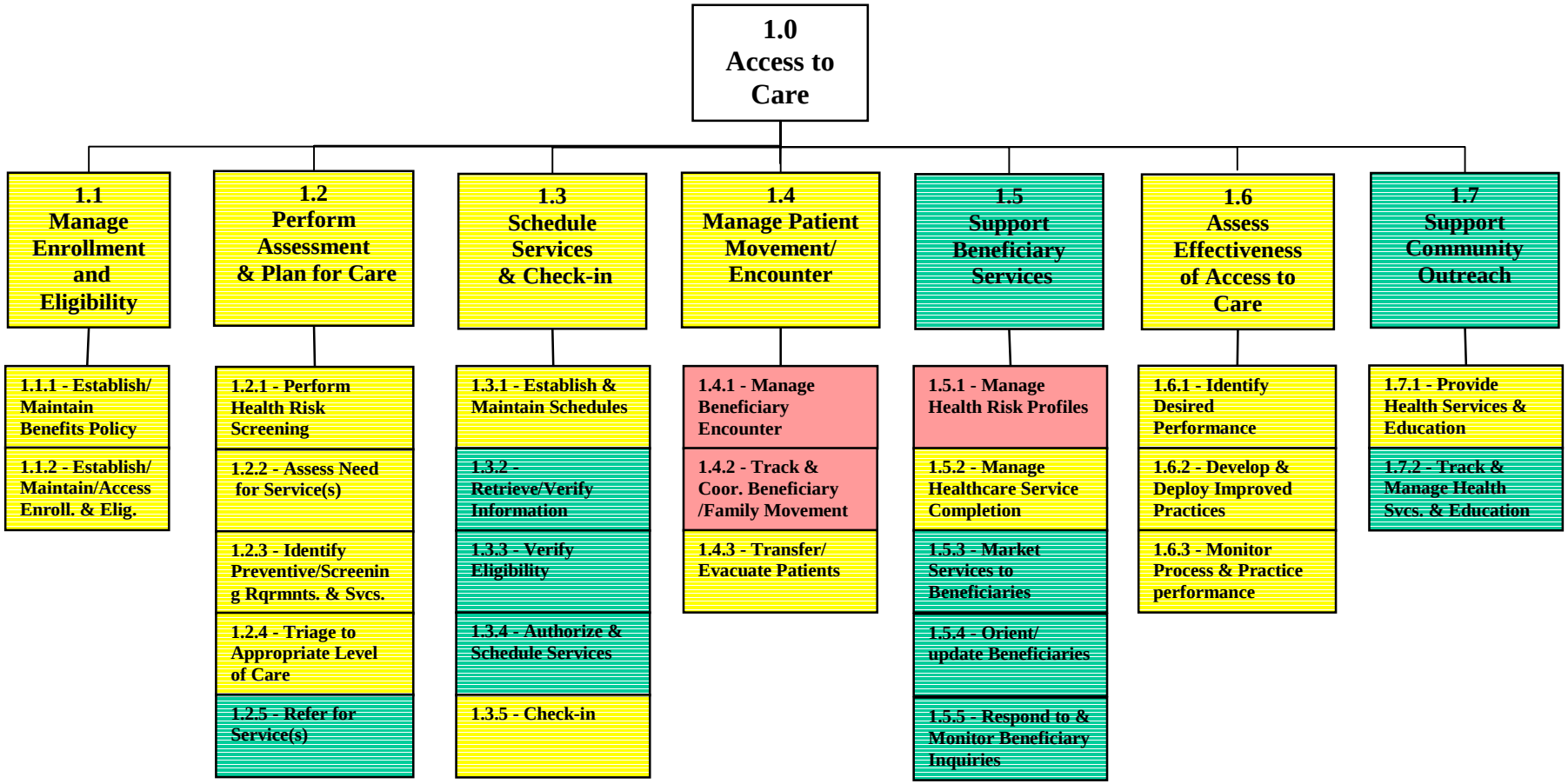
MHS ACTIVITY MODEL (OV-5) VERSUS VHA BUSINESS ARCHITECTURE MAPPING STRENGTHS

APPENDIX D

MHS ACTIVITY MODEL (OV-5) VERSUS VHA BUSINESS ARCHITECTURE MAPPING STRENGTHS

The following charts show the relative mapping strengths as determined from the information contained in the basic mapping document. A "strong" mapping is highlighted in green and was assigned if the VHA process was "the same as" or "equivalent" to the MHS process. A "weak" or "moderate" mapping is highlighted in yellow and was assigned if the VHA process contained only "parts of" or "pieces of" the elements or actions of the MHS process. Finally, a "no equivalent" mapping is highlighted in red and was assigned if no VHA process was found to be comparable to the MHS process.

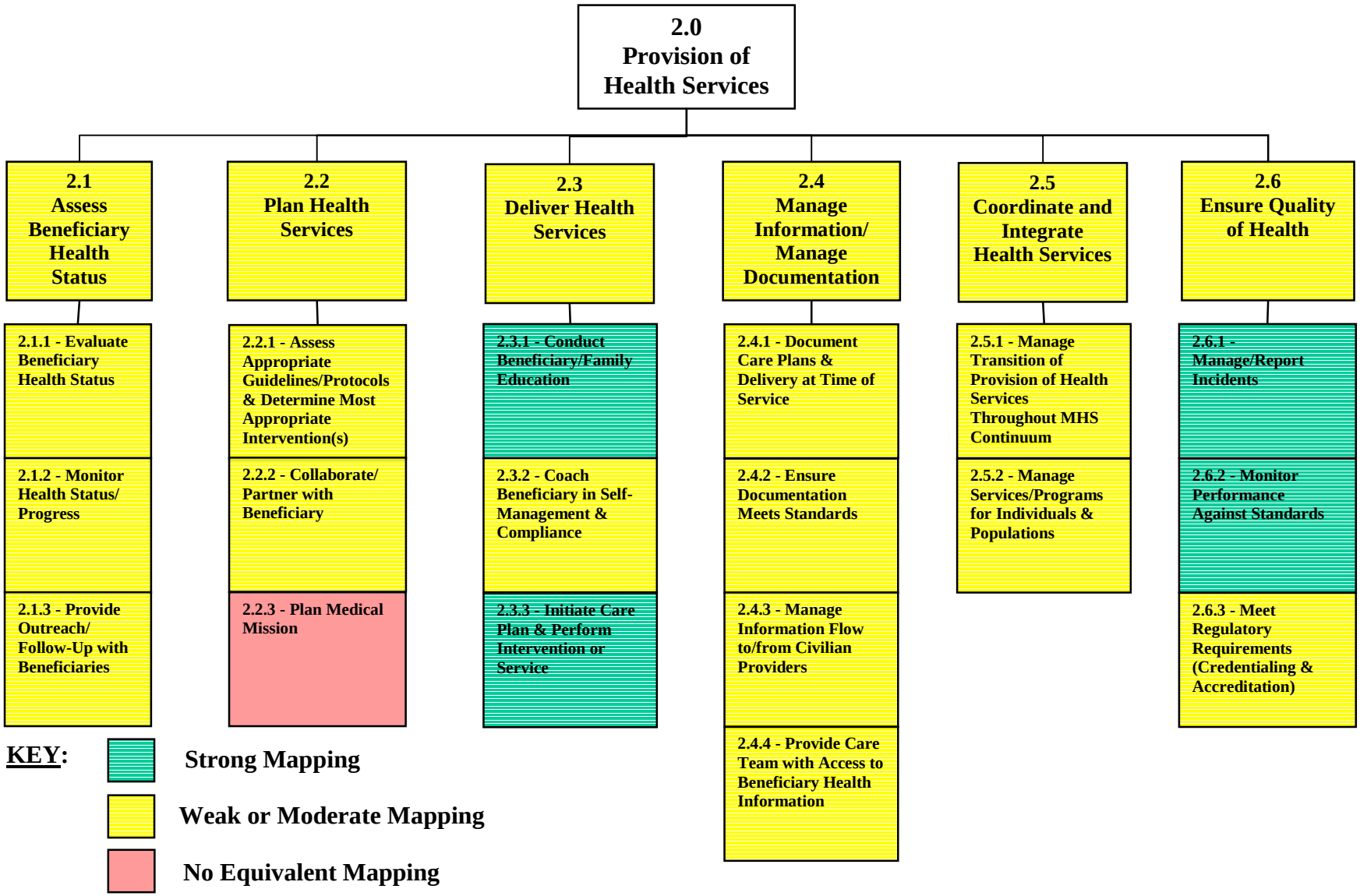
MHS Activity Model (OV-5) versus VHA Business Architecture Mapping Strengths



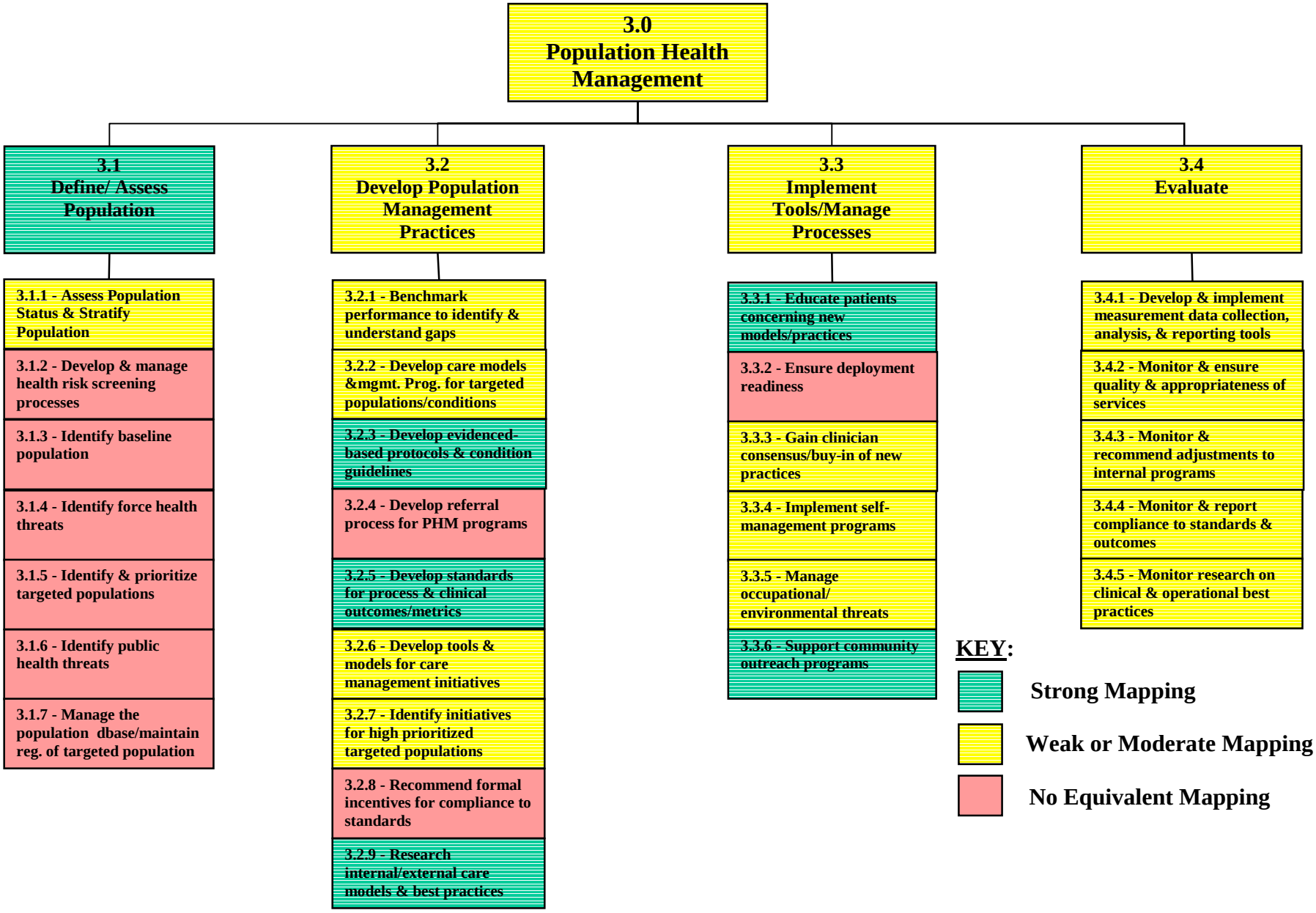
KEY:

- **Strong Mapping**
- **Weak or Moderate Mapping**
- **No Equivalent Mapping**

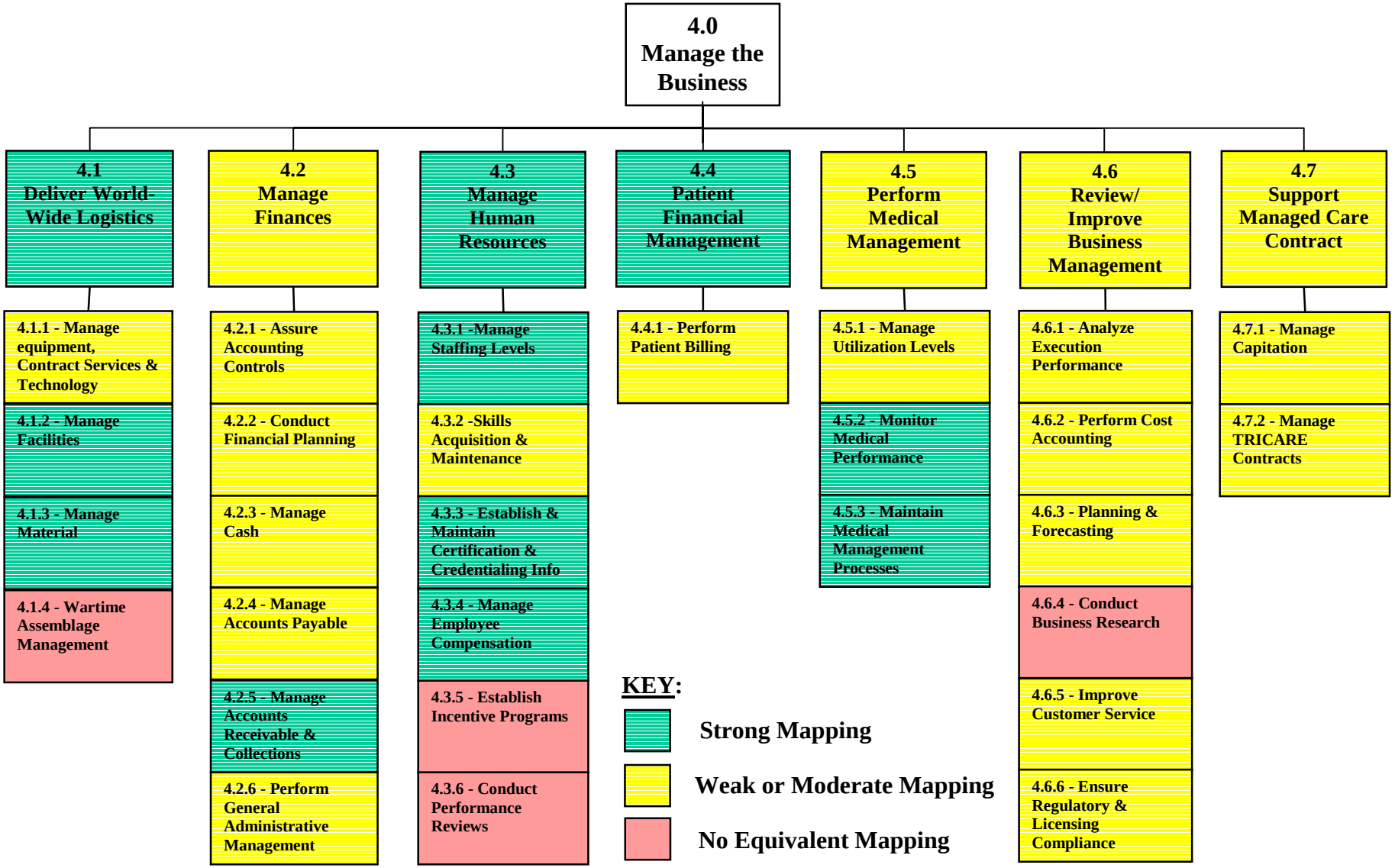
MHS Activity Model (OV-5) versus VHA Business Architecture Mapping Strengths



MHS Activity Model (OV-5) versus VHA Business Architecture Mapping Strengths



MHS Activity Model (OV-5) versus VHA Business Architecture Mapping Strengths



APPENDIX E

UNMAPPED MHS AND VHA BUSINESS PROCESSES

APPENDIX E

UNMAPPED MHS AND VHA BUSINESS PROCESSES

Several BPs from both the MHS Activity Model (OV-5) and the VHA BA could not be mapped because a corresponding business process was not evident from the definitions or from discussions between MHS and VHA functional representatives.

MHS places more emphasis on force health protection and wartime readiness than does the VHA. Consequently, the following BPs of the MHS Activity Model (OV-5) did not have a corresponding map to a BP of the VHA BA.

MHS BP Number	MHS BP Title
1.4.1	Manage beneficiary encounter
1.4.2	Track and coordinate beneficiary/family movement
1.5.1	Manage health risk profiles
2.2.3	Plan Medical Mission
3.1.2	Develop and manage health risk screening processes
3.1.3	Identify baseline population
3.1.4	Identify force health threats
3.1.5	Identify and prioritize targeted populations
3.1.6	Identify public health threats
3.1.7	Manage the population database/maintain registry of targeted population
3.2.4	Develop referral process for PHM programs
3.2.8	Recommend formal incentives for compliance to standards
3.3.2	Ensure deployment readiness
4.1.4	Wartime Assemblage Management
4.3.5	Establish Incentive Programs
4.3.6	Conduct Performance Reviews
4.6.4	Conduct Business Research

VHA does not utilize numbers to identify their processes or sub-processes. Therefore, a unique number was assigned to each VHA BA process and sub-process to facilitate reading, comparing, and reporting. VHA places additional mission emphasis in medical education, academic affiliations, and research and development than does the MHS. Consequently, the following BPs of the VHA BA did not have a corresponding map to a BP of the MHS Activity Model (OV-5).

VHA BP Number	VHA BP Title
1.6	Process Appeal or Notice of Disagreement
1.7	Determine Enrollment Group Threshold
3.4	Provide Ancillary Services
3.5	Provide Allied Health Services
6.2	Maintain Academic Affiliations
7.1	Approve and/or Fund Research
7.2	Administer Research
7.6	Conduct Rehabilitation Research
8.4	Maintain Employee Relations
8.7	Provide Library Services
9.0	Information Management
9.1	Assess Information Needs
9.2	Plan and integrate processes for information priorities and framework (compare current to desired environment implement data capture, storage, and access processes)
9.3	Fulfill Info Requests
11.2	Develop and Maintain Provider Networks
11.6	Maintain Provider Relations (education, orientation, response to inquiries, communicate policy)